# MAJOR DISEASES

# Major Diseases

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# HIGHLIGHTS FROM MAJOR DISEASES

❖ According to the Arthritis Foundation, nearly 40 million Americans (1 in 6) have arthritis. Orange County reports 278,707 cases of arthritis (13.8%) compared with 16.7% nationally. The majority (76.3%) considered the threat of their arthritis to be "not at all serious" to "moderately serious."

❖ The estimated national annual cost of arthritis is $64.8 billion in medical care and indirect costs such as lost wages. According to the OCHNA survey, of respondents with limited activity because of a disability, 8.8% attributed their disability to arthritis, second only to back and neck injury.

❖ Respondents to the OCHNA survey in the low and middle income categories were significantly more likely to suffer from arthritis; however, results suggest low income is not a significant indication of whether a respondent would receive treatment.

❖ Asthma cases reported in Orange County numbered 183,280 (9.1% of residents). Of those, 88% have received treatment. The proportion of Latino/Hispanics discharged from Orange County hospitals for asthma (25%) was relatively high given the proportion of all Latino/Hispanic discharges (15%). Additionally, 18.5% of respondents indicated that their child or children have been diagnosed with asthma. Further results suggest low income respondents showed a higher incidence of asthma.

❖ According to the National Institute of Arthritis and Musculoskeletal and Skin Disease, 10 million individuals in the United Stated have osteoporosis and 18 million more have low bone mass. According to the OCHNA survey, 2.5% of respondents (5,0,795 Orange County residents) have osteoporosis. Of those, 75% have received treatment for their bone disease and 83.2% are currently receiving treatment. Survey results indicate respondents in low and middle income categories were significantly more likely to be diagnosed with bone disease.

❖ Cancer is the second leading cause of death in Orange County, according to the Countywide Health Assessment (1998) prepared by the Orange County Health Care Agency. Lung cancer causes the most deaths and breast cancer is the leading cause of cancer death among women. The financial costs of cancer are extraordinary. The National Cancer Institute estimates the overall annual cost for cancer at $107 billion. According to Orange County HCA the number of hospital discharges for cancer-related care from 1994 through 1996 was 13,526. The cost to Orange County was $365,060,845, representing an average annual cost of $121,686,948.

❖ According to the OCHNA survey, 102,219 Orange County residents (5.1%) have been diagnosed with cancer, and 88.3% of those diagnosed had received treatment. Income is not a significant indicator for cancer.

❖ Between 1994 and 1996 an average of 4,907 deaths occurred in Orange County as a result of cardiovascular (ischemic heart or other heart) disease. Among OCHNA survey respondents, 6% have been diagnosed with cardiovascular disease. Of those 87.1% have received treatment and 73.6% are currently receiving treatment. Low and middle income respondents were significantly more likely to have been diagnosed with heart disease.

❖ Data from the National Institute of Neurological Disorders and Stroke indicate cerebrovascular disease is the third leading cause of death in the United States. The Orange County mortality rate (23.6 deaths per 100,000 population) for cerebrovascular disease is lower than the California or the national rate; however, Orange County does not meet the Healthy People 2000 goal of 20 per 100,000 persons. OCHNA survey results indicate 1.4% of

respondents have been diagnosed with cerebrovascular disease. Of those diagnosed, 83.2% have received treatment and 64.4% are currently receiving treatment. Results further indicate those persons with annual incomes above $50,000 are significantly less likely than those in the low or middle income categories to suffer from stroke.

❖ According to the Centers for Disease Control (CDC), diabetes is the seventh leading cause of death in the United States. OCHNA survey results indicated 5.8% of respondents have been diagnosed with diabetes, spanning all ages from 1 to 76 years and older. Of those with diabetes, 20.5% were diagnosed during pregnancy. Currently, 56% of those diagnosed are taking insulin or some other medication. Results indicated a higher incidence of diabetes for persons in the low income category.

❖ The American Heart Association reports atherosclerosis (a condition caused by high blood cholesterol) causes more deaths from heart disease than any other single condition. Results from the OCHNA survey indicate that among the 15% of respondents diagnosed with high blood cholesterol, 51.3% had received treatment. Of those, 77.3% are currently receiving treatment. Results also indicate those persons in the middle income category had a higher incidence of high blood cholesterol.

❖ According to the National Heart, Lung and Blood Institute, essential hypertension due to an unknown cause accounts for approximately 90% to 95% of all cases of high blood pressure. High blood pressure is prevalent in the overweight and obese, and can be reduced through diet and exercise. More than 34% of OCHNA respondents are considered above a healthy body weight, and 13.5% are considered obese. Thus, nearly half of Orange County's population is at greater risk for developing high blood pressure.

❖ OCHNA results indicate 17.1% of those surveyed have high blood pressure; of those 78.2% have received treatment. Respondents in both the low and middle income categories were more likely to be diagnosed with high blood pressure. Additionally, of those never receiving treatment for their high blood pressure, low income respondents were more likely than those in the middle or high income categories to cite cost as a reason.

❖ Between 1981 and March 1998, the HIV Planning Advisory Council reported 92% of the 4,942 cumulative cases of AIDS were men. Between 1994 and 1996 there were approximately 252 deaths related to AIDS in Orange County. OCHNA survey results showed .2% of respondents have HIV or AIDS. The US Public Health Service has estimated that the lifetime cost of providing medical care to one person with HIV is $119,000.

❖ The American Liver Foundation reports 25 million Americans (1 in 10) are afflicted with liver, bile duct, or gallbladder disease. Chronic liver disease and cirrhosis are the eighth leading disease-related cause of death in the United States. OCHNA survey

❖ results indicated 36,498 Orange County residents have liver disease such as cirrhosis, with low income being an indicator of liver disease. Of those with liver disease, 56.4% have received treatment and 29.5% are currently receiving treatment.

❖ Migraines may affect as many as 26 million Americans; the majority (70%) of migraine sufferers are women. Migraines are often misdiagnosed as a psychological disorder especially clinical depression. OCHNA results indicate that 9.4% of people living in Orange County suffer from migraines. Of those, 72.7% have received treatment and 46.3% are currently receiving treatment. Respondents in the low-income category were significantly less likely to receive treatment for their migraines. Results further indicate those in the low income category were more likely to cite cost as the main reason for not receiving treatment for migraines.

❖ According to the American Lung Association (1994) respiratory disease, which includes chronic bronchitis and emphysema, affected approximately 16 million Americans. In 1993, the estimated cost nationwide was $23.9 billion. According to the OCHNA survey, 2.7% of respondents suffer from respiratory disease. Pneumonia sufferers accounted for 1.9% and tuberculosis, 0.8%.

❖ Latino/Hispanics accounted for 39% of all hospital discharges related to acute respiratory infection, which seems high considering this population accounts for only 14.5% of all Orange County discharges. Low income is an indicator for tuberculosis and respiratory disease.

## ARTHRITIS SUMMARY

❖ Nationally 40 million Americans (16.7%) have arthritis; Orange County reports 278,707 cases (13.8%).

❖ By 2020, the CDC projects arthritis will affect 59.4 million Americans.

❖ The prevalence of arthritis increases rapidly from age 45 and is chronic in most persons.

❖ Women are affected by arthritis more than men. Nearly 23 million women of all ages have arthritis.

❖ Arthritis affects approximately 285,000 children.

❖ The estimated national annual cost of arthritis is $64.8 billion including direct medical care costs and indirect costs such as lost wages.

❖ In the United States, arthritis limits the daily activities of nearly 7 million people. It accounts for 427 million days of restricted activity, 156 million days in bed, and 45 million days lost from work.

❖ Nearly 9% of OCHNA respondents who indicated their activities were limited attributed the cause to arthritis.

❖ According to the *National Arthritis Action Plan*, the preventive measures that should be taken to control arthritis include weight control, occupational and sport injury prevention, early detection and treatment, and effective management of other diseases.

# ARTHRITIS

The condition commonly referred to as arthritis encompasses more than 100 different diseases that cause inflammation, pain, and stiffness primarily in the joints and connective tissues as well as other parts of the body.

According to the Centers for Disease Control and Prevention, arthritis is the leading cause of disability among persons aged 15 and older in the United States. With the aging of the U.S. population, greater attention has been focused on arthritis. In fact, the Arthritis Foundation, Association of State and Territorial Health Officers, and the Centers for Disease Control have initiated a *National Arthritis Action Plan: A Public Health Strategy for FY 1999 and Beyond.* The Arthritis Foundation reports the following:

❖ Nearly 40 million Americans (1 in 6) have arthritis; Orange County reports 278,707 cases.
❖ By 2020, the CDC projects arthritis will affect 59.4 million Americans.
❖ Arthritis prevalence increases rapidly from age 45, and is chronic in most persons.
❖ Women are affected by arthritis more than men. Nearly 23 million women of all ages have arthritis.
❖ Arthritis affects approximately 285,000 children.
❖ On average nationally, 8 visits are made each year to physicians for arthritis -- double the average number of visits to physicians for all causes.
❖ In the United States, arthritis limits the daily activities of nearly 7 million people. It accounts for 427 million days of restricted activity, 156 million days in bed, and 45 million days lost from work.
❖ The estimated national annual cost of arthritis is $64.8 billion including direct medical care costs and indirect costs such as lost wages.

According to the National Arthritis Data Work Group, a task force of the National Institute of Arthritis and Musculoskeletal and Skin Diseases, the National Arthritis Advisory Board, and the Arthritis Foundation in cooperation with the Centers for Disease Control and Preveniton, the types and prevalence of arthritis nationwide are as follows:

❖ Osteoarthritis – 15.8 million
❖ Fibromyalgia – 3.7 million
❖ Rheumatoid arthritis – 2.1 million
❖ Gout – 1 million
❖ Ankylosing spondylitis (spinal arthritis) – 318,000
❖ Juvenile arthritis – 285,000
❖ Psoriatic arthritis – 160,000
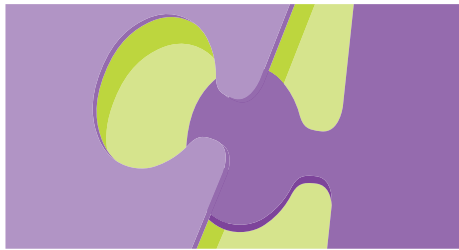❖ Systemic lupus erythematosus – 131,000

According to the State Department of Health Services, in 1996 in Orange County, there were 1,767 discharges from hospitals where 1 of the 2 major types of arthritis (osteoarthritis and rheumatoid arthritis) was listed among the first 5 diagnoses. OCHNA survey results indicate 13.8% of those surveyed have arthritis compared to 16.7% nationally.

| Orange County (%) | Nation (%) |
|---|---|
| 13.8 | 16.7 |

The majority (76.3%) of those diagnosed with arthritis considered the threat of their arthritis to be "not at all serious" to "moderately serious." Of the 57.9% who have received treatment, 52.2% are currently receiving treatment. The majority of persons who have never received treatment (68.6%) and the majority not currently receiving treatment (68%) indicated "no reason to go" as the main reason for not seeking treatment. In addition, among respondents who indicated they had limited activity resulting from a

disability, 8.8% attributed the limitation to arthritis, second only to back and neck impairments. Results indicate people with low income were significantly more likely than those in a high income category to suffer from arthritis. However, according to the survey, low income was not a significant indicator of whether a person would receive treatment.

According to the *National Arthritis Action Plan*, preventive measures should be taken to control arthritis. Public health measures should focus on weight control, occupational and sports injury prevention, early detection and treatment, and effective management of other diseases.

# Community Health: Working the Puzzle

## ASTHMA SUMMARY

❖ According to the American Lung Association, asthma ranks sixth in prevalence among chronic conditions in our nation.

❖ Approximately 14.6 million Americans suffer from asthma; 4.8 million are children. Orange County has reported 183,280 cases.

❖ Between 1982 and 1994, the prevalence rate (rate per 1000 persons, for all ages) increased 61.2%. The prevalence rate of pediatric asthma increased 72%.

❖ Asthma attacks can be fatal; they account for 17% of all pediatric emergency room visits.

❖ In 1995, 5,637 asthma deaths were recorded compared to 2,598 in 1979. According to the American Lung Association, scientists have been unable to identify a definitive cause for the increase in deaths.

❖ Asthma is a leading cause of serious illness among children and poses a greater danger to the health of minority children. Growing evidence implicates pollution and limited access to quality health care as key contributors.

❖ Although many children will outgrow asthma entirely, 75% will continue to struggle with it for the rest of their lives.

❖ Among respondents to the OCHNA survey, 9.1% have been diagnosed with asthma.

❖ 18.5% of respondents indicated their child or children have been diagnosed with asthma.

❖ Latino/Hispanics account for 25% of all asthma-related discharges but only 14.5% of all hospital discharges in the county.

❖ The economic cost of asthma is tremendous. Nationally, estimates of direct medical expenditures and indirect costs associated with asthma total $12.6 million annually.

❖ The best preventive measures against asthma are creating a smoke-free environment, removing indoor dirt and dust, avoiding air pollution, and treating mild asthma symptoms before they turn severe.

# ASTHMA

Asthma is a disease that attacks the airways in the lungs and causes hyper-responsiveness, inflammation, and obstruction. The airways in the lungs become swollen and inflamed in response to various triggers resulting in a narrowing or blockage in the airways. This restriction can cause coughing, wheezing, tightness in the chest, and shortness of breath. Smoke, airborne molds, pollens, dust, animal dander, exercise, cold air, household and industrial products, air pollutants, scents, and stress are common asthma triggers. In addition, cockroaches are a well-known trigger and are often found in substandard housing.

A recent study conducted by the National Institute of Allergy and Infectious Diseases found cockroaches attributed to approximately 25% of all inner city asthma-related illness. Cockroach allergen, the result of a protein found in the saliva and droppings, is most prevalent in housing occupied by minority low income populations. Children who were allergic and exposed to high levels of cockroach allergen "...missed school more often, needed nearly twice as many unscheduled asthma-related medical visits, and suffered through more nights with lost sleep." Additionally, asthma related hospitalizations among children were 3.3 times more frequent than those not exposed or who were exposed and not allergic.

OCHNA survey results indicate low income respondents are more likely to suffer from asthma than respondents in the middle or high income categories. Substandard housing is often inhabited by low income residents including the elderly, minority populations, and young single adults.

According to the American Lung Association (ALA), asthma ranks sixth in prevalence among chronic conditions in our nation. Public attention has recently focused on asthma because the prevalence and mortality rate of asthma has increased over the last decade.

❖ Approximately 14.6 million Americans suffer from asthma; 4.8 million are children. The number of cases reported in Orange County is 183,280.
❖ Between 1982 and 1994, the prevalence rate (rate per 1000 persons, for all ages) rose from 34.8 to 56.1, an increase of 61.2%. During the same period, the prevalence of pediatric asthma rose from 40.1 to 69.1, a 72% increase.
❖ Asthma attacks can be fatal; they account for 17% of all pediatric emergency room visits.
❖ In 1995, 5,637 asthma deaths were recorded compared to 2,598 in 1979.
❖ According to the ALA, scientists have been unable to identify a definitive cause for the increase.

Asthma is a leading cause of serious illness among children and poses a greater danger to the health of minority children. Although the exact cause of the higher rates of asthma for minority children is still undetermined, growing evidence implicates pollution and limited access to quality healthcare as key contributors. A 1996 study conducted at Johns Hopkins University reported inner city asthma patients receive inadequate medical care and little information about how to manage the disease. Children living at or below the poverty level are more likely to be exposed to triggers such as dust, cold air, and stress and are less likely to receive the medical attention they need. Although some children will outgrow asthma entirely, 75% will continue to struggle with it for the rest of their lives.

The ALA reported asthma severity varies among ethnic groups as follows:

❖ Asthma rates are 3 times higher in Puerto Rican children than in non-Latino/Hispanic white children.
❖ Asthma prevalence is nearly twice as high in non-Latino/Hispanic blacks than in non-Latino/Hispanic whites. Black children are 3 times more likely than whites to be hospitalized for treatment of asthma.

Although the greatest increase in rates of asthma have been seen in the younger age groups, asthma continues to be a problem for adults as well. The ALA reported the following:

❖ Between 1982 and 1994 the overall prevalence for asthma increased 61%. The trend in sex-specific prevalence shows males increasing by almost 42% between 1982 and 1994, and females increasing by 81%.

| Men (%) | Women (%) | Overall (%) |
|---------|-----------|-------------|
| 42 | 81 | 61 |

❖ When examined by age, significant increases were seen in all age groups except for those 65 and older. The highest increase was in the 18 to 44 age group (78.3 %).

❖ The trend for race-specific prevalence is more aligned with whites reporting 56.2 cases per 1000 persons and blacks reporting 56.3 cases per 1000 persons. However, in 1995, the death rate for asthma in the black population was 3.8 per 100,000 -- almost 3 times the rate of the white population.

Orange County Health Care Agency collected the following data:

❖ Latino/Hispanics account for 25% of all asthma-related discharges but only 14.5% of all hospital discharges in the county.

OCHNA survey results indicate 9.1% of respondents have been diagnosed with asthma. Of those, 88% have received treatment for their asthma, and 44.5% are currently receiving treatment. The most common reason cited by those persons who have never received treatment and those not currently receiving treatment was "no reason to seek treatment;" i.e., their symptoms may not be serious enough to require medical attention. The majority of respondents considered their asthma to be "not at all serious" to "moderately serious." In addition, 18.5% of respondents indicated their child or children have been diagnosed with asthma. Survey results indicate low income respondents showed a significantly higher incidence of asthma.

The economic cost of asthma is tremendous. Estimates of direct medical expenditures and indirect costs associated with asthma total $12.6 million annually. Inpatient hospital services represent the largest single cost associated with asthma.

According to the ALA, the best preventive measures against asthma are creating a smoke-free environment, cleaning up indoor pollutants such as dirt and dust, treating mild asthma symptoms quickly before they turn severe, and avoiding outdoor air pollution especially on bad air quality days.
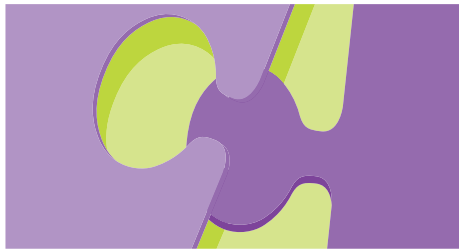
Community Health: Working the Puzzle

## BONE DISEASE SUMMARY

❖ According to the National Institute of Arthritis and Musculoskeletal and Skin Disease, 10 million individuals in the United States have osteoporosis and 18 million more have low bone mass.

❖ American women are 4 times more likely than men to develop osteoporosis.

❖ According to the Missouri Osteoporosis Foundation (MOF), osteoporosis results in 1.5 million fractures each year.

❖ According to MOF, recent evaluations of national medical and social costs related to osteoporosis and osteoporotic fractures were estimated at $13 billion. By 2040, the estimated costs could exceed $50 billion.

❖ According to the OCHNA survey, 2.5% of respondents have osteoporosis or a bone disease.

❖ Precautionary measures that aid in the prevention of osteoporosis include resistive exercise, simple aerobic activity 3 to 4 times per week, calcium supplementation, daily intake of Vitamin D, and bone screening.

# BONE DISEASE

Osteoporosis is defined as an overall decrease in bone mass. The various causes of osteoporosis include generalized disuse; diseases such as hyperthyroidism, lupus, diabetes, and alcoholism; medications such as cortisone; and genetic disorders. The most common cause of osteoporosis is advanced age, and menopause is known to be associated with osteoporosis.

The National Institute of Arthritis and Musculoskeletal and Skin Disease (NIAMSD) reports the following:

❖ 10 million individuals in the United States already have osteoporosis and 18 million more have low bone mass. 50,795 survey respondents reported having bone disease or osteoporosis.

❖ American women are 4 times more likely than men to develop osteoporosis. One in 2 women but only 1 in 8 men will have an osteoporosis-related fracture during his or her lifetime.

According to the Missouri Osteoporosis Foundation, osteoporosis results in 1.5 million fractures each year. As bone mass decreases the risk of fracturing bones increases, particularly the spinal vertebrae, hip, and wrist. In addition, other risk factors such as extreme immobility, chronically low intakes of calcium, being very thin or small boned, smoking, and consuming excessive amounts of alcohol or caffeine increase the likelihood of developing osteoporosis. However, these precautionary measures aid in the prevention of osteoporosis:

❖ Resistive exercise such as light weight lifting on a regular basis (stimulates bone deposition and decreases loss of bone mass)
❖ Simple aerobic activity 3 to 4 times per week for 20 minutes
❖ Calcium supplementation for women who are at risk of developing osteoporosis
❖ An adequate daily intake of Vitamin D
❖ Bone screening (densitometry) for predicting future risk of fracture

According to the MOF, recent evaluations of national medical and social costs related to osteoporosis and osteoporotic fractures were estimated at $13 billion. By 2040, the estimated cost could exceed $50 billion.

OCHNA survey responses indicate 2.5% of those surveyed have osteoporosis or a bone disease. Approximately one fourth (24.5%) of those considered their disease "a very serious threat" while 23.6% considered the threat of the disease "moderately serious." Of those diagnosed, 75% have received treatment for their bone disease and 83.2% are currently receiving treatment. People in low and middle income categories in Orange County are significantly more likely to be diagnosed with osteoporosis than those in the high income category.

## CANCER SUMMARY

❖ Nationally, approximately 1,228,600 new cases of cancer were expected to be diagnosed during 1998, and nearly 564,800 Americans were expected to die of the disease during the same period.

❖ Cancer is the second leading cause of death in the United States, exceeded only by heart disease.

❖ Cancer is the cause of 1 in 4 deaths in the United States.

❖ In the U.S., men have a 1-in-2 lifetime risk of developing cancer; women have a 1-in-3 lifetime risk.

❖ Smokers are 10 times more likely to develop lung cancer. More than 245,000 people in Orange County smoke on a daily basis.

❖ Women who have a family history of breast cancer are twice as likely to develop breast cancer.

❖ According to the OCHNA, cancer is the second leading cause of death in Orange County. Between 1994 and 1996 an average of 3,790 deaths occurred due to cancer.

❖ The survey results indicated that 5.1% of those surveyed have been diagnosed with cancer, representing 102,219 Orange County residents.

❖ The National Cancer Institute estimates overall annual costs for cancer at $107 billion, including $37 billion for direct medical costs, $11 billion for morbidity costs (cost of lost productivity), and $59 billion for mortality costs.

❖ From 1994 to 1996, there were 13,526 hospital discharges for cancer-related care in Orange County. Costs of this care totaled $365 million which is an average annual cost of $122 million.

❖ According to the American Cancer Society, many cases of cancer could be prevented with early detection, proper nutrition, exercise, and healthy lifestyle changes.

❖ The ACS recommends regular screening examinations conducted by healthcare professionals. Early detection can result in more successful treatment.

# CANCER

Cancer is defined as a group of more than 100 diseases characterized by uncontrolled growth and spread of abnormal cells. Cancer is associated with both external (chemicals, radiation, and viruses) and internal (hormones, immune conditions, and inherited mutations) factors.

The American Cancer Society reports the following:

❖ Nationally, approximately 1,228,600 new cases of cancer were expected to be diagnosed during 1998, and nearly 564,800 Americans were expected to die of the disease during the same period.
❖ Cancer is the second leading cause of death in the United States, exceeded only by heart disease.
❖ Cancer is the cause of 1 in 4 deaths in the United States.

Every person is at risk for cancer; however, because the risk increases with age most cases affect middle-aged or older adults. In the United States, men have a 1-in-2 lifetime risk of developing cancer, while the risk for women is 1 in3. Smokers are 10 times more likely than nonsmokers to develop lung cancer. Women who have a family history of breast cancer are twice as likely to develop breast cancer than women with no such family history.

According to OCHNA, cancer is the second leading cause of death in Orange County. Between 1994 and 1996, hospital discharges for cancer-related care numbered 13,526. The financial cost to Orange County was $365,060,845, representing an average annual cost of $121,686,948. Lung cancer causes the most deaths and breast cancer is the leading cause of cancer death in women.

Data collected by the Orange County HCA, California Department of Health Services (CDHS), and the California Department of Finance (CDF) provide the following mortality rates per 100,000 persons for all cancer deaths:

| Orange County | California | United States |
|---|---|---|
| 112.8 | 115.9 | 129.9 |

The Orange County mortality rate for all cancer deaths is below the California and national rates and the Healthy People 2000 guideline of 130 per 100,000 persons.

Data collected by the Orange County HCA, CDHS, and the CDF provide the following mortality rates per 100,000 persons for female breast cancer:

| Orange County | California | United States |
|---|---|---|
| 20.1 | 19.7 | 21.0 |

The Orange County mortality rate for breast cancer is lower than the national average and the Healthy People 2000 guideline of 20.6. However, it is higher than the average for California.

Data collected by the Orange County HCA, CDHS, and the CDF provide the following mortality rates per 100,000 persons for lung cancer:

| Orange County | California | United States |
|---|---|---|
| 30.1 | 31.8 | 39.7 |

The Orange County mortality rate for lung cancer is lower than the state and national rate, as well as the Healthy People 2000 guideline of 42 per 100,000 persons.

Data collected by the Orange County HCA indicate that cancer was the second leading cause of death for the following groups in Orange County between 1994 and 1996:

| Population | Total Deaths (%) |
|---|---|
| All northeast Asians and Pacific islanders | 29.58 |
| All southeast Asians | 26.87 |
| All non-Latino/Hispanic whites | 25.08 |
| All males | 24.88 |
| All residents | 24.59 |
| All females | 24.30 |
| All non-Latino/Hispanic blacks | 22.39 |
| All Latino/Hispanics | 18.31 |

OCHNA survey results indicated 5.1% of respondents had been diagnosed with cancer. Of those, 48.5% considered their cancer "very serious." According to the survey, 11.7% (12,000 Orange County residents) indicated they had never received treatment for their cancer. Survey results indicate income was not a significant indicator for cancer.
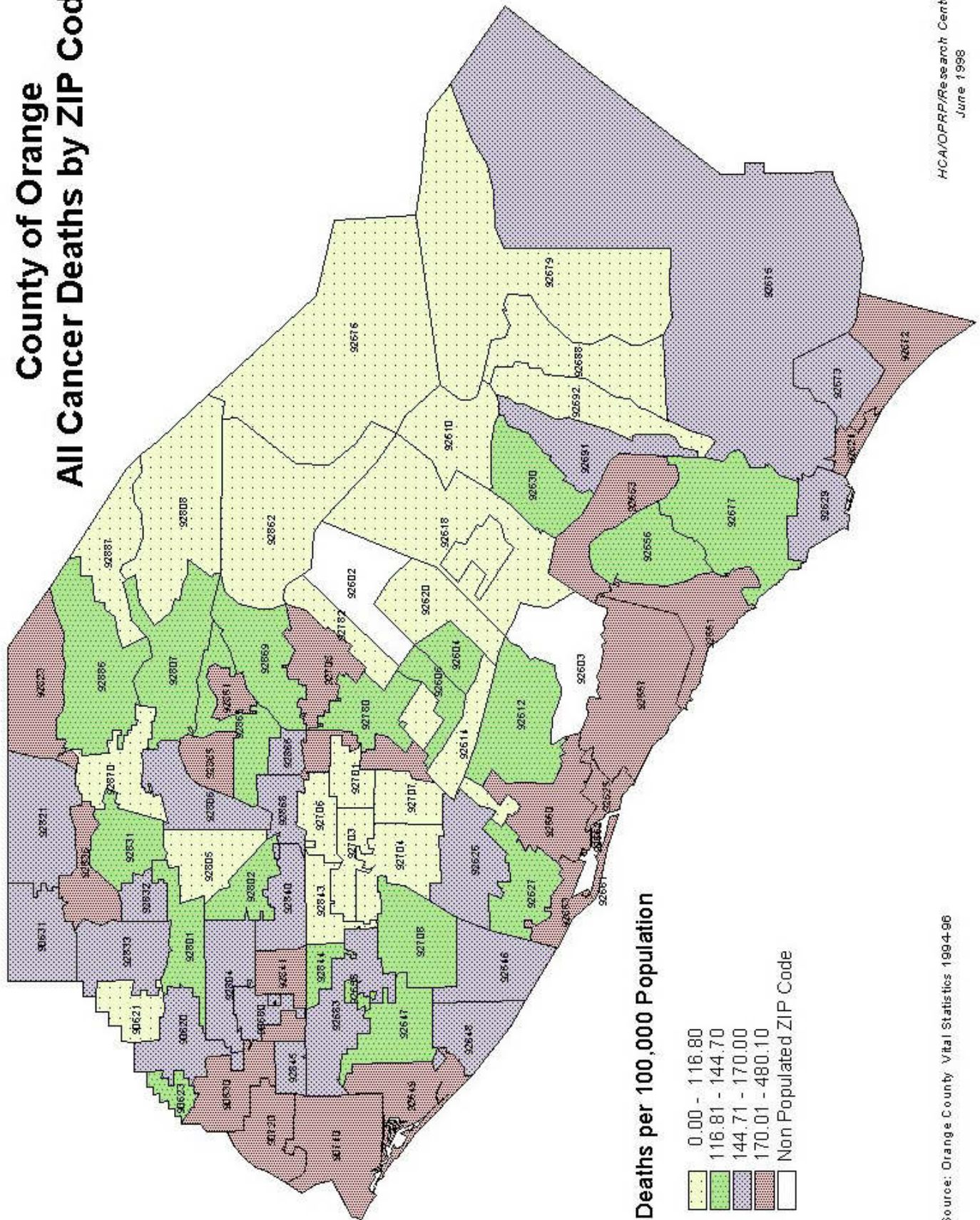
The financial cost of cancer is extraordinary. The National Cancer Institute estimates overall annual costs for cancer in the United States at $107 billion, including $37 billion for direct medical costs, $11 billion for morbidity costs (cost of lost productivity), and $59 billion for mortality costs. Treatment for breast, lung, and prostate cancers accounts for more than half the direct medical costs.

According the ACS, all cancers caused by cigarette smoking and heavy use of alcohol could be entirely prevented. For 1998, ACS estimates about 175,000 cancer deaths were caused by tobacco use and 19,000 additional cancer deaths were related to excessive alcohol use frequently in combination with tobacco.

Many cancers that are related to dietary factors could also be prevented. Scientific evidence suggests up to one third of the 564,800 cancer deaths that were expected to occur in the United States in 1998 were related to nutrition. OCHNA survey results indicate the majority of children in Orange County (83.5%) eat in fast food restaurants at least once a week. Further results also show approximately 90% of children in Orange County do not meet the dietary guideline of eating 5 or more fruits and vegetables each day. In addition, many of the 1 million skin cancer cases expected to be diagnosed in 1998 could have been prevented by protection from the sun. In Orange County, 47.2% of residents seldom or never wear protective clothing when out in the sun.

The ACS recommends regular screening examinations -- especially for breast, colon, rectum, cervix, prostate, testis, tongue, mouth, and skin cancers which account for nearly half of all new cancer cases -- conducted by healthcare professionals for the detection of cancer at earlier stages, when treatment is more likely to be successful.

# County of Orange
# All Cancer Deaths by ZIP Code



**Deaths per 100,000 Population**

- 0.00 - 116.80
- 116.81 - 144.70
- 144.71 - 170.00
- 170.01 - 480.10
- Non Populated ZIP Code

Source: Orange County Vital Statistics 1994-96

HCA/OPRP/Research Center
June 1998

# County of Orange
# Lung Cancer Deaths
# by ZIP Code
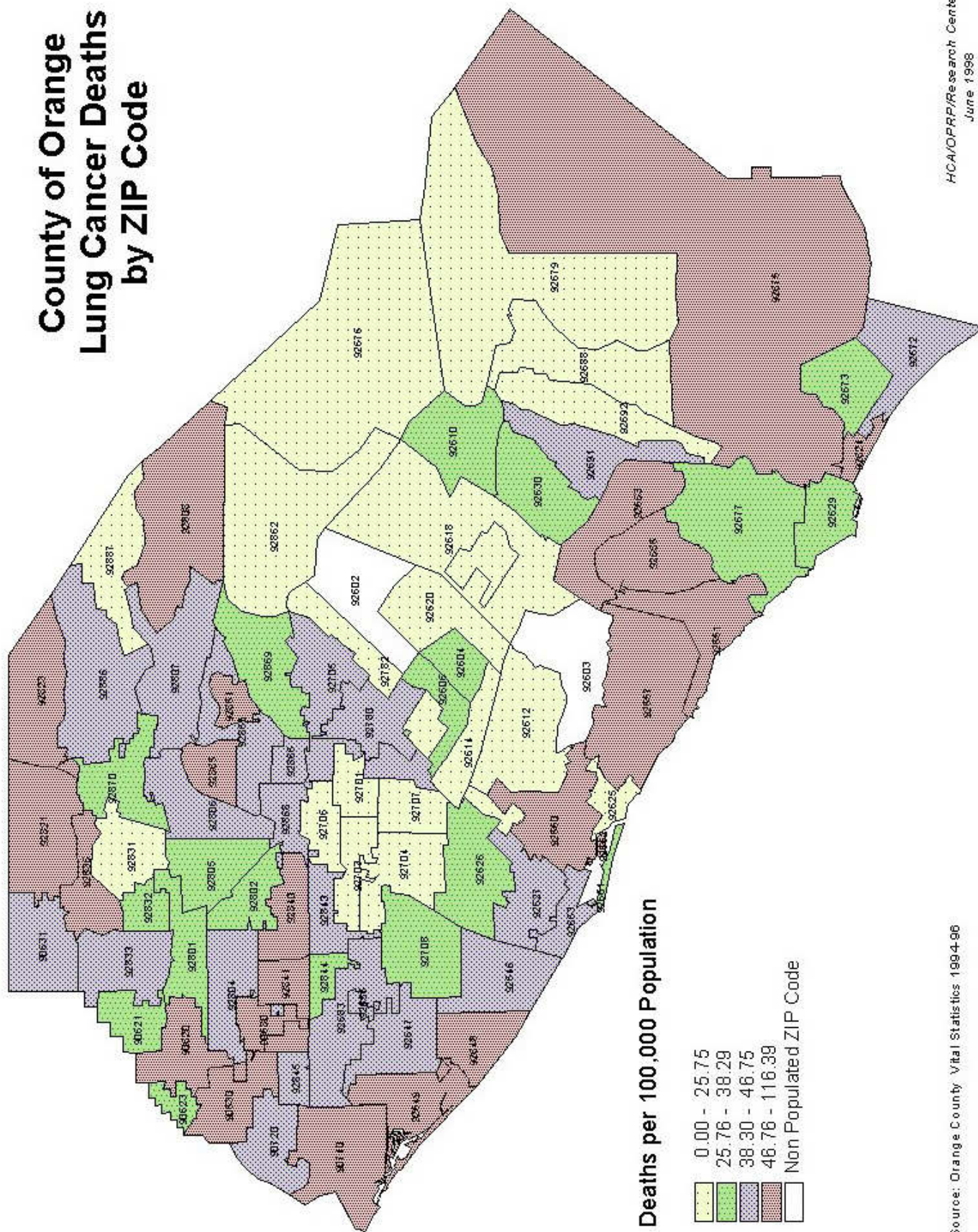


**Deaths per 100,000 Population**

- 0.00 - 25.75
- 25.76 - 38.29
- 38.30 - 46.75
- 46.76 - 116.39
- Non Populated ZIP Code

Source: Orange County Vital Statistics 1994-96

HCA/OPRP/Research Center
June 1998

# County of Orange
# Female Breast Cancer Deaths
## by ZIP Code
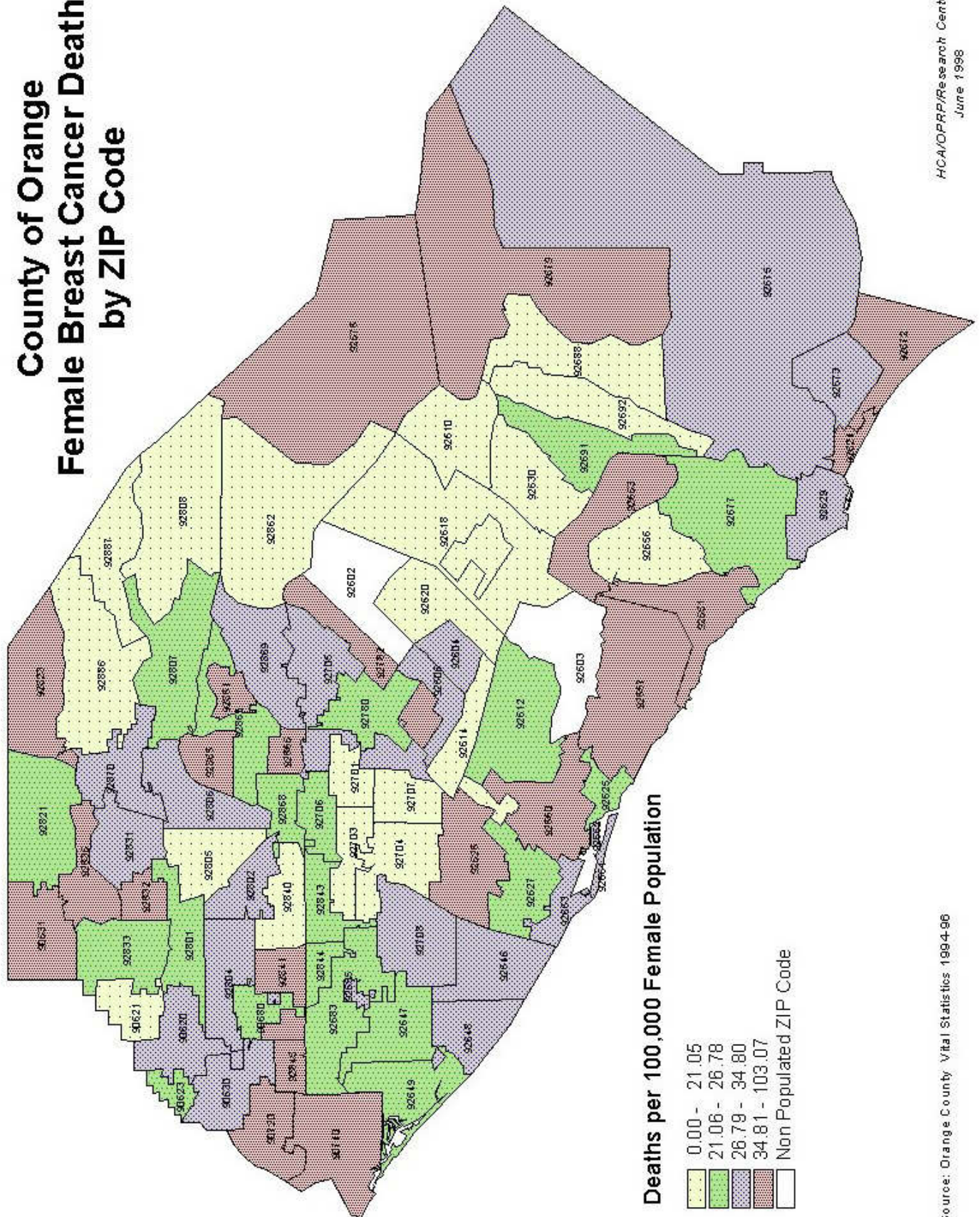


**Deaths per 100,000 Female Population**

- 0.00 - 21.05
- 21.06 - 26.78
- 26.79 - 34.80
- 34.81 - 103.07
- Non Populated ZIP Code

HCA/OPRP/Research Center
June 1998

Source: Orange County Vital Statistics 1994-96

## CARDIOVASCULAR DISEASE SUMMARY

❖ Those who suffer from poverty and depression are at greater risk for developing heart disease and dying at an earlier age.

❖ The race and sex of a cardiac patient may determine whether certain life-saving procedures will be performed.

❖ Highly demanding jobs increase the risk of developing heart disease.

❖ According to the OCHNA survey, 6%, of respondents (120,923), have been diagnosed with cardiovascular disease.

❖ Controllable risk factors for many types of heart disease include high blood pressure, smoking, elevated cholesterol, diabetes, obesity, and physical inactivity.

# CARDIOVASCULAR DISEASE

Heart disease is a progressive and sometimes symptom-less buildup of fatty substances in the blood vessels, which can begin as early as childhood. Over time, such deposits can lead to blockages that prevent oxygen and nutrients from nourishing the heart muscle.

According to research conducted by Redford B. Williams, Ph.D., at Duke University, people who do not have good social relations and/or have incomes near the poverty level are at a much greater risk for developing heart problems and dying at an earlier age. The race and sex of a cardiac patient may also determine whether certain life-saving procedures will be performed. Research further indicates those who harbor too much hostility and those who suffer from depression have more difficulty initiating and maintaining social relations. Also, highly demanding jobs with very little decision-making power have been found to increase hostility, depression, and social isolation. Laboratory research shows cardiovascular responses to acute mental stressors can be reduced when social support is provided to the subjects.

Data collected by the Orange County HCA, California Department of Health Services, and the California Department of Finance provide the following mortality rates per 100,000 persons for cardiovascular disease:

| Orange County | California | United States |
|---|---|---|
| 98.6 | 100.6 | 138.3 |

Although the Orange County mortality rate for cardiovascular diseases is lower than that for the state and the nation, as well as the Healthy People 2000 guideline of 100 per 100,000 persons, it is still the leading cause of death in Orange County.

Data reported by the Orange County HCA indicate the following mortality rates from cardiovascular disease (ischemic and other heart disease) in Orange County between 1994 and 1996:

| Population | Average Deaths, 1994-1996 | Total Deaths (%) |
|---|---|---|
| All non-Latino/Hispanic whites | 4,346.3 | 33.65 |
| All females | 2,566.7 | 32.91 |
| All residents | 4,907.7 | 31.84 |
| All males | 2,341.0 | 30.75 |
| All non-Latino/Hispanic blacks | 38.7 | 24.76 |
| All northeast Asians and Pacific islanders | 125.6 | 24.55 |
| All southeast Asians | 67.6 | 21.04 |
| All Latino/Hispanics | 285.0 | 20.43 |

Of those completing the OCHNA survey, 6% have been diagnosed with cardiovascular disease. Although 6% may not sound like many people, this figure translates to almost 121,000 individuals in Orange County with some form of heart disease. More than 32% considered their disease "very serious" and 11.8% considered it "not at all serious." Nearly 13% of those with heart disease have never received treatment. Of those not seeking treatment, 61% indicated they had "no reason to go." Finally, survey results support the research conducted by Dr. Redford B. Williams that showed low income respondents were significantly more likely to have been diagnosed with heart disease. They responded more often to feeling distressed, irritable, and nervous.

According to the American Heart Association and the Centers for Disease Control, risk factors can be controlled for many types of heart disease, such as high blood pressure, smoking, elevated cholesterol, diabetes, obesity, and physical inactivity. By taking the following steps, the risk of heart disease can be reduced:

- ❖ Do not smoke.
- ❖ Exercise on a regular basis.
- ❖ Maintain a healthy weight for your height.
- ❖ Eat a lot of fruits, vegetables, and fish.
- ❖ Avoid saturated fats and trans-fatty acids.
- ❖ Monitor your blood pressure regularly.
- ❖ Monitor your cholesterol and triglyceride levels regularly.
- ❖ Take steps to reduce risk of diabetes.
- ❖ Undergo hormone replacement therapy if you are a postmenopausal woman.
- ❖ Seek medical advice for any chest pain.

Community Health: Working the Puzzle

## CEREBROVASCULAR DISEASE SUMMARY

❖ Data from the National Institute of Neurological Disorders and Stroke (NINDS) indicate cerebrovascular disease (stroke) is the third leading killer in the United States.

❖ Each year, more than 500,000 Americans have a stroke, and approximately 145,000 people die from stroke-related causes.

❖ The 4 main types of stroke are cerebral thrombosis, cerebral embolism, cerebral hemorrhage, and subarachnoid hemorrhage.

❖ Respondents to the OCHNA survey in the high income category were less likely than those in the low or middle income categories to be diagnosed with cerebrovascular disease.

❖ According to NINDS, a better understanding of why strokes occur has helped Americans cut the death rate from strokes nearly in half over the last 2 decades.

❖ Controllable risk factors for stroke include high blood pressure, cigarette smoking, heart disease, warning signs or history of stroke, and diabetes.

❖ NINDS predicts that, with continued education, Americans should be able to prevent 80% of all strokes by the end of the decade.

# CEREBROVASCULAR DISEASE

A stroke is a cerebrovascular disease that affects the blood vessels supplying blood to the brain. A stroke occurs when a blood vessel bringing oxygen and nutrients to the brain bursts or is clogged by a blood clot or some other particle. Because of such a rupture or blockage, part of the brain does not receive the flow of blood it needs and nerve cells die in the affected area. As a result, the areas of the body controlled by the affected cells cannot function.

Data from the National Institute of Neurological Disorders and Stroke (NINDS) indicate that cerebrovascular disease is the third leading killer in the United States. Each year, more than 500,000 Americans have a stroke and approximately 145,000 people die from stroke-related causes.

The 4 main types of strokes:

❖ Cerebral thrombosis and cerebral embolism – the most common strokes accounting for 70% to 80% of all strokes; caused by clots or particles that plug an artery
❖ Cerebral and subarachnoid hemorrhages – caused by ruptured blood vessels; have a much higher fatality rate than strokes caused by blood clots or other particles.

Common warning signs of a stroke:

❖ Sudden weakness or numbness of the face, arm, or leg on 1 side of the body
❖ Sudden dimness or loss of vision, particularly in 1 eye
❖ Sudden difficulty speaking or trouble understanding speech
❖ Sudden severe headache with no known cause
❖ Unexplained dizziness, unsteadiness, or sudden falls especially accompanied by any of the signs listed above

Data collected by the Orange County HCA, California Department of Health Services (CDHS), and the California Department of Finance (CDF) provide the following mortality rates per 100,000 persons for cerebrovascular disease:

| Orange County | California | United States |
|---------------|------------|---------------|
| 23.6 | 26.3 | 26.7 |

Although the Orange County mortality rate for cerebrovascular disease is below the state and national rates, Orange County does not meet the Healthy People 2000 guideline of 20 deaths per 100,000 persons.

Data reported by the Orange County HCA indicate the following mortality rates from cerebrovascular disease between 1994 and 1996:

| Population | Average Deaths, 1994-1996 | Total Deaths (%) |
|------------|---------------------------|------------------|
| All residents | 942.3 | 6.11 |
| All non-Latino/Hispanic whites | 795.3 | 6.16 |
| All females | 587.0 | 7.53 |
| All males | 355.3 | 4.67 |
| All Latino/Hispanics | 64.3 | 4.61 |
| All northeast Asians and Pacific islanders | 41.0 | 8.01 |
| All southeast Asians | 25.7 | 7.99 |
| All non-Latino/Hispanic blacks | 7.3 | 4.69 |

More than 29,000 Orange County residents have been diagnosed with cerebrovascular disease; 38.6% of them consider the disease to be "very serious" and 16.8% never received treatment. Results indicate people with annual incomes of more than $50,000 were less likely than those in the low or middle-income categories to suffer from a stroke.

According to NINDS, a better understanding of why strokes occur has helped Americans cut the death rate from strokes nearly in half over the last 2 decades. Additionally, risk factors such as high blood pressure, cigarette smoking, heart disease, warning signs or history of strokes, and diabetes can be controlled. Therefore, NINDS predicts that, with continued education, Americans should be able to prevent 80% of all strokes by the end of the decade.

# County of Orange
# Cerebrovascular Disease Deaths
# by ZIP Code



**Deaths per 100,000 Population**

- 0.00 - 25.50
- 25.51 - 36.08
- 36.09 - 51.30
- 51.31 - 170.22
- Non Populated ZIP Code
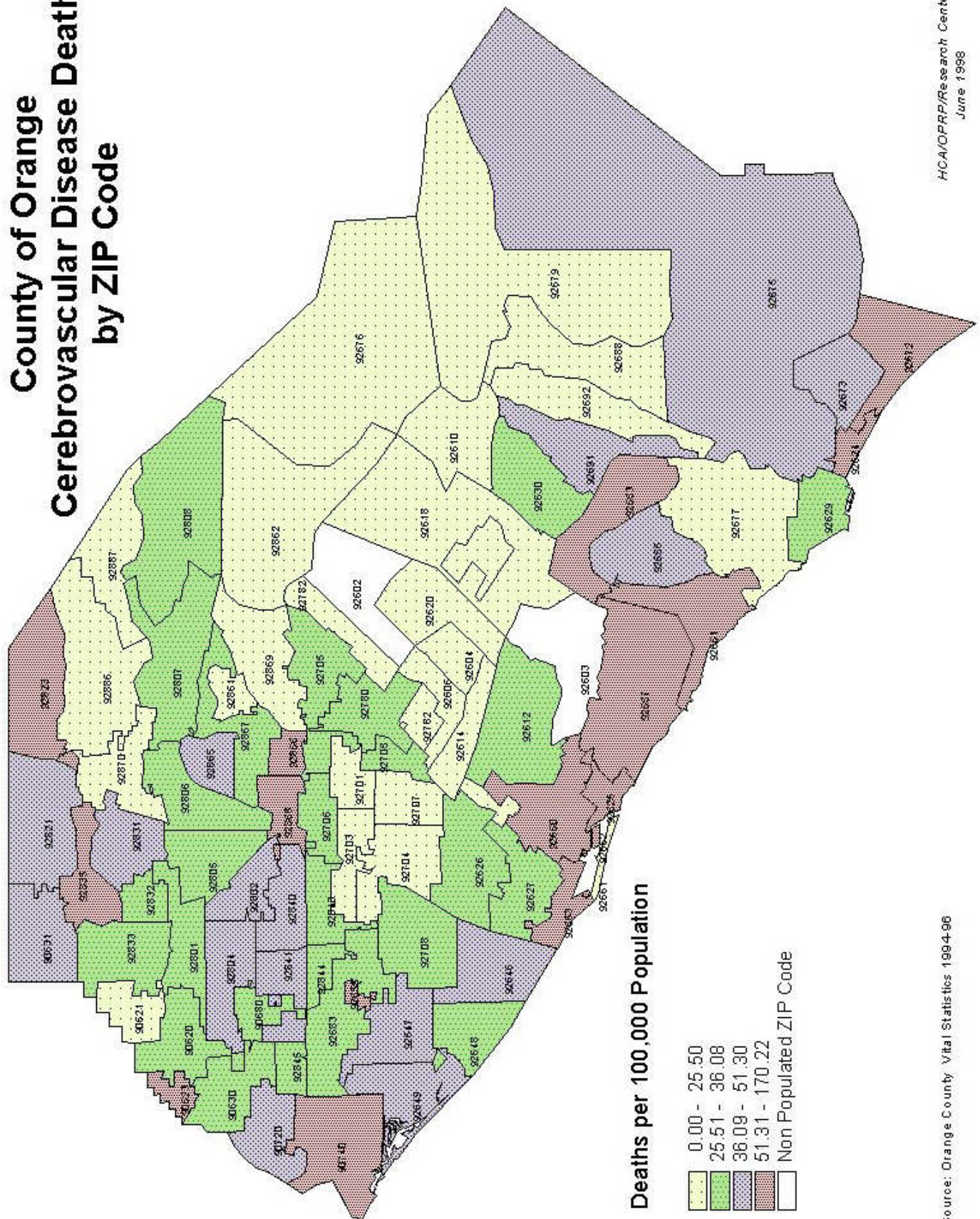
Source: Orange County Vital Statistics 1994-96

HCA/OPRP/Research Center
June 1998

## DIABETES SUMMARY

❖ According to the Centers for Disease Control and Prevention, diabetes is the seventh leading cause of death in the United States.

❖ Diabetes can cause serious health complications, including heart disease, blindness, kidney failure, and lower extremity amputations.

❖ Diabetes affects people of all ages.

❖ Currently, there is no cure for diabetes; consequently, prevention is key.

❖ OCHNA survey results indicate 118,161 respondents (5.8%) were diagnosed with diabetes; 20.5% of those were diagnosed during pregnancy.

❖ Currently, 56% of those diagnosed with diabetes are taking insulin or some other medication.

# DIABETES

According to the Centers for Disease Control and Prevention, diabetes is the seventh leading cause of death in the United States. Diabetes affects people of all ages.

Most of the food we eat is turned into glucose, or sugar, for our bodies to use for energy. The pancreas produces a hormone called insulin to help the absorption of glucose into our cells. When a person has diabetes, either the pancreas does not produce enough insulin or the body is unable to use the insulin in an effective manner, causing sugars to build up in the body. Without the appropriate levels of insulin, serious health complications can occur, including heart disease, blindness, kidney failure, and lower extremity amputations.

## Types of diabetes

Type 1 diabetes was previously called insulin-dependent diabetes mellitus or juvenile-onset diabetes. Autoimmune, genetic, and environmental factors are involved in the development of type 1 diabetes. Type 1 diabetes makes up approximately 5% to 10% of all diagnosed cases.

Type 2 diabetes was previously called non–insulin-dependent diabetes mellitus or adult-onset diabetes. Risk factors for type 2 diabetes includes older age, obesity, family history of diabetes, prior history of gestational diabetes, impaired glucose tolerance, physical inactivity, and race/ethnicity. Type 2 diabetes accounts for approximately 90% to 95% of all diagnosed cases. Blacks, Latinos/Hispanics, American Indians, and some Asians and Pacific islanders are at much higher risk for contracting type 2 diabetes.

Gestational diabetes develops in approximately 2% to 5% of all pregnancies, but usually disappears after giving birth. Gestational diabetes occurs more frequently in blacks, Latino/Hispanics, American Indians, and people with a family history of diabetes than in other groups. As previously mentioned, women who have had gestational diabetes are at a greater risk of developing type 2 diabetes. In some studies, nearly 40% of women with a history of gestational diabetes developed diabetes later in life. Obesity is also associated with higher risk.

Other types of diabetes result from specific genetic syndromes, surgery, drugs, malnutrition, infections, and other illnesses. These types of diabetes may account for 1% to 2% of all diagnosed cases of diabetes.

## Treatment of diabetes

Type 1 diabetes: The CDC recommends a strict regimen including a carefully calculated diet, planned physical activity, home blood glucose testing several times per day, and multiple daily insulin injections.

Type 2 diabetes: The CDC recommends diet control, exercise, home blood glucose testing, and in some cases, oral medication or insulin.

While researchers continue to work on identifying the exact triggers that predispose some individuals to develop type 1 diabetes, a number of studies have shown that regular physical activity can significantly reduce the risk of developing type 2 diabetes. Currently, there is no cure for diabetes; consequently, prevention is key. In addition, the CDC recommends that persons over age 45 be tested every 3 years because of the sharp rise in incidence of diabetes after age 45.

  The Orange County HCA collected the following data regarding diabetes-related deaths in Orange County:

| Population | Average Deaths, 1994-1996 | Total Deaths (%) |
|---|---|---|
| All residents | 294.3 | 1.91 |
| All non-Latino/Hispanic whites | 210.3 | 1.63 |
| All males | 148.3 | 1.95 |
| All females | 146.0 | 1.87 |
| All Latino/Hispanics | 56.3 | 4.04 |
| All northeast Asians and Pacific islanders | 14.3 | 2.80 |
| All southeast Asians | 8.3 | 2.59 |
| All non-Latino/Hispanic blacks | 3.0 | 1.92 |

OCHNA survey results indicate 5.8% of respondents have been diagnosed with diabetes; more than one fifth of diagnosed cases were gestational in nature. The majority of those diagnosed (68%) with diabetes consider their diabetes to be "moderately serious" to "very serious." Of those diagnosed, only 84.7% have received treatment for their diabetes. Currently, 56% of those diagnosed with diabetes are taking insulin or some other medication. Finally, results indicate people in the low income category had a significantly higher incidence of diabetes.

Community Health: Working the Puzzle

# HIGH BLOOD CHOLESTEROL SUMMARY

❖ High cholesterol, or hypercholesterolemia, increases the risk of heart disease.

❖ There are 2 components of cholesterol: low density lipoprotein (LDL), the "bad" cholesterol, and high-density lipoprotein (HDL), the "good" cholesterol.

❖ According to the American Heart Association (AHA), eating foods high in saturated fat, or cholesterol, is the most common cause of high blood cholesterol.

❖ The AHA reports that atherosclerosis, a hardening and narrowing of the blood vessels, causes more deaths from heart disease than any other single condition.

❖ There are no signs of high blood cholesterol until complications develop; therefore, prevention is key. Eating foods low in saturated fat, getting more exercise (especially aerobic), not smoking, and maintaining a normal weight, can help reduce cholesterol levels.

❖ The AHA indicates for every 1% reduction in cholesterol level, the risk of heart disease is reduced by 2%.

❖ The AHA recommends daily cholesterol intake should be limited to less than 300 milligrams. People with severe high blood cholesterol may need to reduce their intake even more.

❖ OCHNA results indicate barely half (51.3%) of the 301,192 individuals diagnosed with high blood cholesterol have received treatment for it.

# HIGH BLOOD CHOLESTEROL

According to the American Heart Association (AHA), cholesterol is a waxy substance found exclusively in foods that come from animals. In addition, cholesterol is manufactured by the body in the liver. Small amounts of cholesterol are required to make and maintain nerve cells and to manufacture natural hormones. High cholesterol, or hypercholesterolemia, increases the risk of heart disease.

There are 2 components of cholesterol: low-density lipoprotein (LDL), the "bad" cholesterol, and high-density lipoprotein (HDL), the "good" cholesterol. The goal is to lower LDL levels and increase HDL levels.

Further information provided by the AHA indicates eating foods high in saturated fat, or cholesterol, is the most common cause of high blood cholesterol. Other possible causes:

❖ An inherited disorder in which cholesterol is not metabolized properly by the body
❖ A disease that raises the cholesterol level (e.g., diabetes mellitus or type 1 diabetes, kidney and liver diseases, or hypothyroidism)

Excess cholesterol causes fatty deposits to form inside blood vessels and can result in hardening and narrowing of the blood vessels. This condition is called atherosclerosis, resulting in decreased blood flow and the possibility of blood clots forming and stopping the flow of blood altogether. A complete lack of blood flow to the heart results in a heart attack. The AHA reports atherosclerosis causes more deaths from heart disease than any other single condition.

There are no signs of high blood cholesterol until complications develop. Such complications include the chest pain of a heart attack and calf pain while walking. Prevention is the key to avoiding high blood cholesterol. The AHA indicates for every 1% reduction in cholesterol level, the risk of heart disease is reduced by 2%. Ways to lower cholesterol levels:

❖ Eating foods low in saturated fat
❖ Getting more exercise, especially aerobic exercise
❖ Not smoking
❖ Maintaining a normal weight

Recommendations by the AHA indicate the average daily cholesterol intake should be limited to less than 300 milligrams. People with severe high blood cholesterol may need to reduce their intake even more. According to the *1997 Healthy People 2000 Review*, high blood cholesterol for adults fell from 27% to 19% nationally, which is below the Year 2000 target.

OCHNA survey results indicate barely half (51.3%) of the 301,192 individuals diagnosed with high blood cholesterol have received treatment for it. Results also indicate people in the middle income category had a higher incidence of high blood cholesterol.

The AHA does not recommend mass public screenings (e.g., at shopping malls or supermarkets) to detect high blood cholesterol, even though public awareness of this disease may be increased. The data suggest many people participating in such screenings are either low risk or already know their cholesterol level. More important, there is no guarantee of follow-up to ensure the appropriate medical treatment. The AHA recommends focus be centered on smaller scale screenings with the potential for a more significant continuum of care.

## HIGH BLOOD PRESSURE SUMMARY

❖ According to the National Heart, Lung, and Blood Institute, normal blood pressure for adults is less than 140/90.

❖ High blood pressure can lead to serious medical conditions such as arteriosclerosis (a hardening and narrowing of the blood vessels), heart attacks, an enlarged heart, kidney damage, and strokes.

❖ Essential hypertension accounts for nearly 90% to 95% of all high blood pressure cases yet its cause is unknown. Secondary hypertension accounts for the remaining 5% to 10% of cases. Hypertension is a symptom of some underlying health problem and will cease once the problem is resolved.

❖ High blood pressure is prevalent in several groups, including overweight and obese people. In such cases, high blood pressure can be reduced through diet and exercise.

❖ Other preventive measures to reduce high blood pressure are managing stress, having regular blood checks during pregnancy, eating a high potassium diet, avoiding salty foods, not smoking, moderating alcohol intake, and exercising regularly.

❖ OCHNA survey results indicate 17.1% of those surveyed have high blood pressure.

❖ The survey also indicates 34% of respondents are considered overweight and 13.5% are considered obese. Nearly 10% of respondents with children reported their children were overweight.

# HIGH BLOOD PRESSURE

According to educational information from the National Heart, Lung, and Blood Institute, blood pressure is the tension created in the arteries when the heart pumps to circulate blood through the body delivering oxygen and nutrients to vital organs. Blood pressure is regulated by the brain and varies throughout the day to meet the changing needs of the body. Normal blood pressure for adults is less than 140/90. A higher reading is a sign of high blood pressure or hypertension.

High blood pressure can lead to serious medical conditions such as arteriosclerosis (a hardening and narrowing of the blood vessels), heart attacks, an enlarged heart, kidney damage, and strokes.

Types of high blood pressure:

❖ Essential hypertension accounts for approximately 90% to 95% of all cases. Even though there is no known cause for this type of hypertension; a lot can be done to reduce the risk of this form of high blood pressure.

❖ Secondary hypertension is a symptom of another underlying problem, such as kidney abnormality, tumor of the adrenal gland, or congenital defect of the aorta.  This form of high blood pressure ceases once the underlying problem is resolved.  This type of high blood pressure accounts for the remaining 5% to 10% of all cases.

High blood pressure is prevalent among the following groups:

❖ Blacks
❖ Those aged 35 and older
❖ Women taking oral contraceptives
❖ Individuals with diabetes mellitus or type 1 diabetes, gout, or kidney disease
❖ Pregnant women

High blood pressure is also prevalent in overweight and obese people, and can be reduced through diet and exercise. According to the OCHNA survey, 34% of respondents are considered to be above a healthy body weight and 13.5% are considered obese. Nearly 30% of the reportedly overweight respondents and 21.8% of the reportedly obese respondents "do not exercise at all." In addition, 9.8% of respondents with children considered their children to be overweight.

Preventive measures that can reduce the risk of high blood pressure:

❖ Managing stress
❖ Having regular blood pressure checks during pregnancy
❖ Eating a high-potassium diet.
❖ Avoiding salty foods
❖ Not smoking
❖ Moderately using alcohol
❖ Exercising regularly

OCHNA survey results indicate 17.1% (346,704 Orange County residents) have high blood pressure. Of those diagnosed, 78.2% have received treatment for their high blood pressure and 78.5% are currently receiving treatment. In addition, the results indicate income is an indicator of high blood pressure. People earning less than $50,000 annually were significantly more likely to be diagnosed with high blood pressure than those in the high income category.

## HIV/AIDS SUMMARY

❖ Age-adjusted death rates from HIV infection in the U.S. declined an unprecedented 47% from 1996 to 1997, and HIV infection fell from 8th to 14th among leading causes of death in the U.S. in the same period.

❖ The decline in AIDS deaths is primarily due to the continuing impact of highly active antiretroviral therapy in helping people with HIV live longer.

❖ HIV transmission has not been reduced, however. It is estimated that 40,000 new HIV infections occur each year.

❖ Black and Latino/Hispanic women together represent less than one fourth of all U.S. women yet they account for more than three fourths (76%) of AIDS cases reported to date among women in this country.

❖ Young and minority women are also disproportionately affected by other sexually transmitted diseases, making women at least 2 to 5 times more vulnerable to HIV infection.

❖ The 30 to 39 age group is the single largest group of reported AIDS cases in Orange County.

❖ OCHNA survey results show .2% of those surveyed have HIV or AIDS.

❖ The U.S. Public Health Service has estimated the lifetime cost for providing medical care to 1 person with HIV disease is $119,000.

❖ Because there is no cure for AIDS at this time, control of the epidemic can be achieved only through education and primary prevention including modification of personal behavioral risk factors.

# HIV/AIDS

HIV, or human immunodeficiency virus, causes AIDS, acquired immunodeficiency syndrome. When someone becomes infected with HIV, which is spread from one person to another through sexual and blood-to-blood contact, the virus attacks his or her immune system. A person develops AIDS when his or her immune system becomes so damaged it can no longer fight opportunistic infections, certain cancers, and certain neurological disorders that can be fatal. Most people become infected by having sex or sharing needles with someone who already has the virus.

According to a 1997 report from the National Center for Health Statistics, a part of the Centers for Disease Control and Prevention, age-adjusted death rates from HIV infection in the U.S. declined 47% from 1996 to 1997, and HIV infection fell from 8th to 14th among leading causes of death in the U.S. over the same period. For those aged 25 to 44, HIV dropped from the leading cause of death in 1995 to third in 1996 and fifth in 1997. The age-adjusted HIV death rate of 5.9 deaths per 100,000 population is the lowest rate since 1987, the first year mortality data were available. The 1997 rate is less than half the 1992 rate (12.6) and almost one third the rate in 1995 (15.6).

Additionally, the report states the decline in AIDS deaths is primarily due to the continuing impact of highly active antiretroviral therapy in helping people with HIV live longer and healthier lives. However, even though the statistics show new treatments have been effective in extending the lives of people who already have HIV, it does not mean that HIV transmission has been reduced. It is estimated that 40,000 new HIV infections occur each year and the annual number of new HIV infections in the U.S. has not declined in recent years. The total number of people living with HIV is still increasing.

In the United States, blacks have been disproportionately affected by HIV and AIDS. Through December 1997, CDC had received reports of 230,029 cases of AIDS among blacks. Although that figure comprises 36% of the 641,086 cases reported, blacks represent only an estimated 13% of the total U.S. population. In 1997, more blacks than any other racial/ethnic group were reported with AIDS. Among women and children with AIDS, blacks have been especially affected, representing 60% of all women reported with AIDS in 1997 and 62% of reported pediatric AIDS cases for 1997.

CDC studies show prior to the impact of new combination drug therapies to treat HIV infection, AIDS incidence was increasing at 15% to 30% each year among black and Latino/Hispanic women. Black and Latino/Hispanic women together represent less than one fourth of all U.S. women yet they account for more than three fourths (76%) of AIDS cases reported to date among women in this country.

Furthermore, female adolescents and young adult women under age 25 are at higher risk for HIV infection and sexually transmitted diseases (STD) than older women. (This increased risk maybe the result of their greater tendency to have multiple sex partners, to engage in risky behaviors, or to be unable to negotiate safer sexual practices with partners.)

Young and minority women are also disproportionately affected by other sexually transmitted diseases – gonorrhea, syphilis, and chlamydia – that make women at least 2 to 5 times more vulnerable to HIV infection. Improved STD treatment will be a critical strategy for slowing the spread of HIV among heterosexuals.

According to data provided by the HIV Planning Advisory Council, AIDS was first detected in Orange County in 1981. Of the 4,942 cumulative cases of AIDS reported between 1981 and March 1998, 92% were men. Less than 1% of Orange County AIDS cases reported to the CDC are children under age 13. Finally, those aged 30 to 39 comprise the single largest group of reported AIDS cases in Orange County.

Data collected by the Orange County HCA, California Department of Health Services (CDHS), and the California Department of Finance (CDF) provide the following mortality rates per 100,000 persons for AIDS:

| Orange County | California | United States |
|---|---|---|
| 16.3 | 27.4 | 26.0 |

Data collected by the Orange County HCA indicate the following 3-year average mortality rates for AIDS in Orange County between 1994 and 1996:

| Population | Average Deaths, 1994-1996 | Total Deaths (%) |
|---|---|---|
| All residents | 252.7 | 1.64 |
| All males | 236.3 | 3.10 |
| All non-Latino/Hispanic whites | 176.3 | 1.37 |
| All Latino/Hispanics | 57.0 | 4.09 |
| All females | 16.3 | 0.21 |
| All non-Latino/Hispanic blacks | 11.3 | 7.25 |
| All North East Asians & Pacific Islanders | 4.7 | 0.91 |
| All southeast Asians | 1.7 | 0.52 |

In the last 2 decades, Orange County has experienced significant demographic changes. From 1976 to 1996 the total population increased by 50%. In this period, the ethnic distribution shifted from 87% to 58% white, from 10% to 27% Latino/Hispanic, from 2% to 11% Asian/Pacific islander, and from 1% to nearly 2% black. As with the population, the distribution of HIV/AIDS cases among ethnic groups has changed. The proportion of whites has declined from 80% of cases reported in 1990 to 53% of the cases reported in 1997. Latino/Hispanic cases have increased from 14% of total cases in 1990 to 36% of 1997 AIDS cases. In 1997, the percentage of Latino/Hispanics among Orange County AIDS cases was greater than the Latino/Hispanic proportion of the total population (27%). For blacks, who comprise less than 2% of the county population, AIDS case reports increased from 3% of cases in 1990 to 6% in 1997. The percentage of AIDS cases among Asian/Pacific islanders has remained relatively low at less than 4% of total AIDS cases reported. In comparison, 12% of Orange County residents are Asian/Pacific islanders.

Survey response rates regarding HIV/AIDS were too low for statistical reliability. Therefore, no conclusions should be drawn; please review the following information with caution. OCHNA survey results show .2% of those surveyed have HIV or AIDS; 35.6% considered the threat of their disease to be "very serious," and 35.6% considered the threat of HIV/AIDS to be "not at all serious." Nearly 65% have received treatment.

The U.S. Public Health Service has estimated that the lifetime cost for providing medical care to 1 person with HIV disease is $119,000. Consequently, the reported 2,155 Orange County residents who died from AIDS in 1997, could have cost the healthcare system $256,445,000.

## County of Orange
## AIDS Rates by ZIP Code



*HCA/OPRP/Research Center*
*July 1998*

AIDS Cases per 100,000 Population

0.00 - 10.00
10.01 - 18.96
18.97 - 28.00
28.01 - 434.18
Non Populated ZIP Code

Source: Orange County Vital Statistics 1994-96
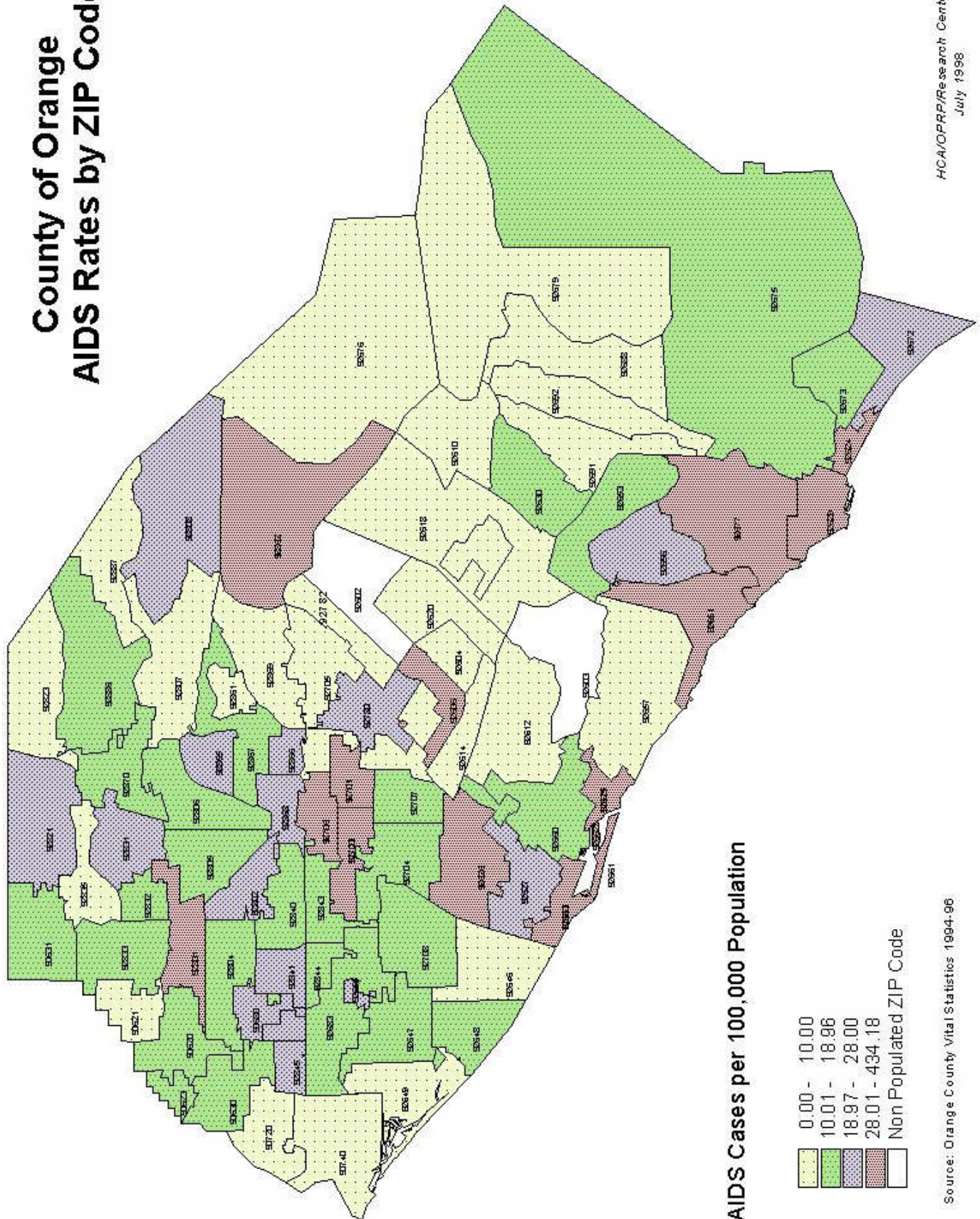
## LIVER DISEASE SUMMARY

❖ Cirrhosis; hepatitis A, B, and C; and gallstones are some of the more familiar liver diseases.

❖ 25,000,000 Americans (1 in 10) are afflicted with liver, bile duct, or gallbladder diseases.

❖ Chronic liver diseases and cirrhosis are the eighth leading disease-related cause of death in the United States.

❖ Eliminating alcohol abuse could prevent 75% to 80% of cirrhosis cases.

❖ An estimated 3.5 million people are chronically infected with hepatitis C, and 8,000 to 10,000 people die of this disease each year.

❖ OCHNA survey results indicate 1.8% of respondents have a liver disease.

❖ Additionally, 2,380 Orange County residents never received treatment because of cost.

# LIVER DISEASE

According to the American Liver Foundation, the liver performs an array of vital functions in the production and use of nutrients and other chemicals. The liver is responsible for sugar, fat, and protein metabolism, and helps absorb nutrients into the cells of the body. The liver also helps produce and store several minerals, vitamins, starch (glycogen), and proteins that are necessary to transport nutrients to various cells throughout the body. Consequently, chronic liver disease has a significant impact on the body's metabolism.

There are numerous diseases of the liver including cirrhosis; hepatitis A, B and C; and gallstones. Cirrhosis is a group of chronic liver diseases in which normal liver cells are damaged and replaced by scar tissue. Hepatitis is an inflammation of the liver caused by a virus or toxin and characterized by jaundice, liver enlargement, and high fever. A vaccine to protect against hepatitis B is available. Gallstones are lumps of solid material, usually cholesterol, that form in the gallbladder or the bile passages. All of these diseases interfere with proper liver function.

The American Liver Foundation provides the following statistics:

❖ 25 million Americans (1 in 10) are afflicted with liver, bile duct, or gallbladder diseases.
❖ Chronic liver diseases and cirrhosis are the eighth leading disease-related cause of death in the United States.
❖ Eliminating alcohol abuse could prevent 75% to 80% of cirrhosis cases.
❖ An estimated 3.5 million people are chronically infected with hepatitis C, and 8,000 to 10,000 people die from this disease each year.

Data reported by the Orange County HCA indicate the following mortality rates from chronic liver disease between 1994 and 1996:

| Population | Average deaths, 1994-1996 | Total deaths (%) |
|---|---|---|
| All residents | 228.7 | 1.48 |
| All non-Latino/Hispanic whites | 152.0 | 1.18 |
| All males | 147.0 | 1.93 |
| All females | 81.7 | 1.05 |
| All Latino/Hispanics | 57.3 | 4.11 |
| All northeast Asians and Pacific islanders | 8.3 | 1.63 |
| All southeast Asians | 6.3 | 1.97 |
| All non-Latino/Hispanic blacks | 2.3 | 1.49 |

OCHNA survey results indicate 1.8% of respondents have a liver disease; only 43.6% (15,914 respondents) have not received treatment for the disease while 29.5% are currently receiving treatment. Additionally, 2,380 Orange County residents never received treatment because of cost. Finally, results show low income was an indicator of liver disease. However, low income did not appear to be a significant indicator of whether a person would receive treatment.

## MIGRAINE SUMMARY

❖ Migraines have many symptoms including nausea, vomiting, auras (light spots), sensitivity to light or sound, numbness, difficulty in speech, and severe semihemispherical pain.

❖ A migraine attack can last for several weeks.

❖ Migraines can cause many serious physical conditions including strokes, aneurysms, permanent visual loss, severe dental problems, coma, and even death.

❖ Migraines are often misdiagnosed as a psychological disorder especially clinical depression. Of those suffering from migraines, 60% of women and 70% of men have never been diagnosed.

❖ No known cure exists for migraines; only the symptoms are treated. However, such treatments are not completely effective.

❖ Various controllable and uncontrollable triggers such as hormone fluctuation, diet, alcohol, stress, and change in weather, season, altitude, time zone, sleep patterns, or meal times cause migraines.

❖ Migraine is considered to be a genetically based disease. Individuals with a single parent suffering from migraine have approximately a 50% chance of suffering from this affliction. Nearly 38 million Americans have the genetic propensity toward migraines.

❖ Migraines affect people of all ages. As many as 18 million Americans, most of them women, are afflicted with this disease.

❖ OCHNA survey results indicate 9.4% of respondents (nearly 190,000 Orange County residents) suffer from migraines.

❖ According to the Mayo Clinic web site, "Health Oasis," the economic impact of people suffering migraines is significant. Approximately $4 billion per year is spent on over-the-counter medications for treatment of migraines in the United States. In addition, people suffering from migraines miss an average of 4 workdays per year as a result of this affliction.

# MIGRAINES

According to the National Migraine Association, migraine is a disease and headaches are only a symptom. Migraine pain is caused by an expansion of the blood vessels while a narrowing of the blood vessels causes headache pain. During a migraine, inflammation of the tissue surrounding the brain exacerbates the pain. Therefore, medicine such as beta-blockers often prescribed to treat a headache dilate the blood vessels, causing the migraine to be worse. Unlike a headache, a migraine has many symptoms including nausea, vomiting, auras (light spots), sensitivity to light or sound, numbness, difficulty in speech, and severe semihemispherical head pain. A migraine attack can last for several weeks. Migraines can cause many serious physical conditions including strokes, aneurysms, permanent visual loss, severe dental problems, coma, and even death.

Migraine disease can also have a devastating and disruptive effect on ordinary living. Migraine sufferers experience excruciating pain as well as social ostracism, job loss, other prejudices in the workplace, and disruption of personal relationships. People often think that those suffering from migraine disease just cannot handle life or have drug and alcohol problems. Such perceptions can be formed when, for example, people see a migraine sufferer wearing sunglasses indoors (photosensitive) or making frequent trips to the restroom (nausea and vomiting).

Migraine is often misdiagnosed as a psychological disorder especially clinical depression, causing doctors to prescribe unnecessary, counterproductive, and even dangerous medication. Of those suffering from migraine, 60% of women and 70% of men have never been diagnosed with the disease.

There is no known cure for migraines; only the symptoms can be treated. However, such treatments are not completely effective, and people suffering from migraines may show a diminished tolerance to a variety of medications, treatments, and pain management regimens. Migraines are caused by various controllable and uncontrollable triggers such as the following:

❖ Hormone fluctuation
❖ Diet
❖ Alcohol
❖ Stress
❖ Change in weather, season, altitude, time zone, sleep patterns, or meal times

The severity and frequency of migraines depend on how many triggers an individual must experience before a migraine is induced. The combination of triggers is different for each person.

Additionally, migraine is considered to be a genetically based disease. According to research from Spectra Biomedical, Inc., a group of research physicians dedicated to understanding the genetic basis of migraine and other illnesses, individuals with a single parent suffering from migraine have approximately a 50% chance of suffering from also. Nearly 38 million Americans have the genetic propensity toward migraines.

Migraines affect people of all ages. As many as 18 million Americans, most of them women, are afflicted with the disease.

❖ Migraines affect less than 5% of children under age 12.
❖ More than 5% of teenagers are afflicted with migraine.
❖ Migraines peak in the 35 to 40 age range.
❖ Migraines tend to lessen in frequency and intensity after age 50.

OCHNA survey results indicate 9.4% of respondents suffer from migraines; and of those 72.7% (nearly 190,000 Orange County residents) have received treatment and 46.3% are currently receiving treatment. The main reason given by respondents for never seeking treatment (47.3%) and for not currently seeking

treatment (74.4%) was "no reason to go." However, 7.2% indicated "fear" as the reason for never seeking treatment, and an additional 7.4% cited "cost" as the reason.

According to the Mayo Clinic web site, "Health Oasis," the economic impact of people suffering from migraines is significant. Approximately $4 billion per year is spent on over-the-counter medications for treatment of migraines in the United States. In addition, people suffering from migraines miss an average of 4 workdays per year because of this affliction. In 1996, the State Department of Health Services stated 837 discharges from hospitals in Orange County listed migraine headaches among the first 5 diagnoses, a rate of 31.9 per 100,000.
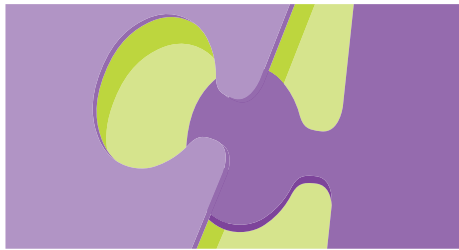
Community Health: Working the Puzzle

## RESPIRATORY DISEASE SUMMARY

❖ In 1994, approximately 16 million Americans suffered from chronic obstructive pulmonary disease. Chronic bronchitis and emphysema are 2 of the most familiar conditions associated with respiratory disease.

❖ Currently, chronic bronchitis ranks seventh in prevalence among reported chronic conditions and affects people of all ages.

❖ Cigarette smoking is the greatest risk factor both for chronic bronchitis and emphysema.

❖ OCHNA survey results indicate 2.7% of respondents suffer from respiratory disease.

❖ In 1993, the economic cost nationwide for chronic obstructive pulmonary disease was $23.9 billion. This figure includes $4.7 billion in direct healthcare costs, $4.7 billion in indirect morbidity costs, and $4.5 billion in indirect mortality costs.

# RESPIRATORY DISEASE

According to the American Lung Association (ALA), in 1994, approximately 16 million Americans suffered from chronic obstructive pulmonary disease, many conditions of which chronic bronchitis and emphysema are the most prominent. Chronic bronchitis is an illness defined by cough with sputum production that is present for 3 months of the year for 2 consecutive years. Currently, chronic bronchitis ranks seventh in prevalence among reported chronic conditions and affects people of all ages. Emphysema is an illness involving the destruction of the walls of the air spaces within the lungs. Emphysema cases are more concentrated in the elderly, and in 1994, the reported prevalence rate was 7.7 per 1,000 persons. Although there is a congenital form of emphysema, cigarette smoking is the greatest risk factor for chronic bronchitis and emphysema.

According to data collected by the Orange County HCA, the proportion of Latino/Hispanics discharged from Orange County hospitals for acute respiratory infections was relatively high (39%) given the proportion of total hospital discharges that were Latino/Hispanic (14.5%).

Data collected by the Orange County HCA indicates the following mortality rates from COPD between 1994 and 1996:

| Population | Average Deaths, 1994-1996 | Total Deaths (%) |
|---|---|---|
| All residents | 778.0 | 5.05 |
| All non-Latino/Hispanic whites | 719.0 | 5.57 |
| All females | 424.3 | 5.44 |
| All males | 353.7 | 4.65 |
| All Latino/Hispanics | 22.3 | 1.60 |
| All northeast Asians and Pacific islanders | 17.3 | 3.39 |
| All southeast Asians | 12.3 | 3.84 |
| All non-Latino/Hispanic blacks | 4.3 | 2.77 |

OCHNA survey results indicate 2.7% of respondents suffer from respiratory diseases such as emphysema; nearly 20% have never received treatment. Of those who never received treatment for their respiratory disease, 17.6% did not seek treatment because of cost. Finally, results indicate low income was an indicator of respiratory disease.

The economic costs of chronic bronchitis and emphysema are great. According to the National Heart, Lung and Blood Institute, in 1993, the estimated cost nationwide for chronic obstructive pulmonary disease was $23.9 billion. This figure includes $4.7 billion in direct healthcare costs, $4.7 billion in indirect morbidity costs, and $4.5 billion in indirect mortality costs.

## PNEUMONIA SUMMARY

❖ People most at risk for pneumonia are very young children, those suffering from chronic respiratory or circulatory problems, and those with immune systems compromised by congenital deficiencies, medications, or AIDS.

❖ Medicare pays 100% of the pneumococcal vaccine and its administration if ordered by a doctor.

❖ People who need the vaccine most are those over age 65, those between ages 2 and 64 who have chronic heart or respiratory problems, and those over age 2 who have suppressed immune systems due to HIV or some other infection.

❖ OCHNA survey results indicate 1.9% of respondents were told by their doctor they had pneumonia.

❖ Only 13.3% of OCHNA respondents have ever received a pneumonia vaccination.

# PNEUMONIA

Pneumonia is defined as an inflammation of the lungs accompanied by congestion. Symptoms typically include coughing, fever, chills, and chest pain. According to the American Lung Association, pneumonia can strike anyone at any time of year. People most at risk are very young children, those suffering from chronic respiratory or circulatory problems, and those with immune systems compromised by congenital deficiencies, medications, or AIDS.

According to American Lung Association data, Medicare pays 100% of the cost for pneumococcal vaccine and its administration if ordered by a physician. Most adults need to receive this vaccine only once. People most in need of the vaccine:

❖ Anyone over age 65
❖ Anyone between age 2 and 64 who has chronic heart or respiratory problems
❖ Anyone over age 2 who has a suppressed immune system due to HIV or some other infection

Data collected by the Orange County HCA on the mortality rates for pneumonia and influenza between 1994 and 1996 are as follows:

| Population | Average Deaths, 1994-1996 | Total Deaths (%) |
|---|---|---|
| All residents | 721.7 | 4.68 |
| All non-Latino/Hispanic whites | 635.0 | 4.92 |
| All females | 403.0 | 5.17 |
| All males | 318.7 | 4.19 |
| All Latino/Hispanics | 45.3 | 3.25 |
| All northeast Asians and Pacific islanders | 24.0 | 4.69 |
| All southeast Asians | 10.3 | 3.22 |
| All non-Latino/Hispanic blacks | 3.3 | 2.13 |

OCHNA survey results indicate 1.9% of respondents were told by their doctor they had pneumonia. According to survey results, respondents usually missed 7 workdays due to pneumonia. Only 13.3% of respondents have ever received the pneumonia vaccine.

## TUBERCULOSIS SUMMARY

❖ Babies, young children, and those suffering from HIV/AIDS, diabetes mellitus or type 1 diabetes, silicosis, cancer of the head or neck, low body weight are at greater risk for tuberculosis.

❖ According to the American Lung Association, it is important to differentiate between testing positive for tuberculosis and actually having the disease. Nearly 10 to 15 million Americans test positive for TB.

❖ The ALA reports although it is not easy to become infected with tuberculosis, there is no highly or uniformly effective vaccination for TB.

❖ From 1994 to 1996, the Orange County mortality rate for TB was lower than for California, but it exceeded the national rate and the Healthy People 2000 guideline.

❖ OCHNA survey results indicate 0.8% of respondents have had tuberculosis.

# TUBERCULOSIS

Tuberculosis (TB), once the leading cause of death in the United States, is an airborne infectious disease that attacks the lungs. However, TB can attack almost any part of the body. According to the National Tuberculosis Center, persons with TB usually have no symptoms. However, once the disease becomes active, persons may experience a bad cough lasting longer than 2 weeks, pain in the chest, coughing up blood or sputum, weakness or fatigue, weight loss, lack of appetite, chills, fever, and night sweats. The TB bacteria become active when a person's immune system can no longer fight them. People at greater risk for TB are babies, young children, and those with the following conditions:

❖ HIV/AIDS
❖ Diabetes mellitus or type 1 diabetes
❖ Silicosis
❖ Cancer of the head or neck
❖ Leukemia and Hodgkin's disease
❖ Severe kidney disease
❖ Substance abuse
❖ Low body weight
❖ Undergoing medical treatments such as corticosteroid treatment or organ transplants

According to the American Lung Association (ALA), it is important to differentiate between testing positive for TB and having TB disease. Someone who tests positive for TB has the TB germs, or bacteria, in his or her body. The body's defenses are protecting the person from the germs and he or she does not experience any symptoms. Someone with TB disease is contagious and can spread the disease to others. Medical experts including the American Thoracic Society believe about 10 to 15 million Americans are infected with TB germs. Only about 10% of these people will develop TB disease in their lifetime. The other 90% will never get sick from the TB bacteria or be able to infect others.

The ALA reports although it is not easy to become infected with tuberculosis, there is no highly or uniformly effective vaccine for tuberculosis. TB is usually spread between family members, close friends, and people who live or work together.

Treatment for TB depends on whether a person has TB disease or TB infection. A person who is infected with TB may be given preventive therapy such as prescribed TB medication that must be taken daily for 6 to 12 months with periodic checkups. A person who has TB disease usually gets a combination of several drugs for 6 to 9 months; after a few weeks the patient may be able to return to normal activities without infecting others.

Data collected by the Orange County HCA, California Department of Health Services (CDHS), and the California Department of Finance (CDF) provide the following mortality rates per 100,000 persons for tuberculosis disease, for the period 1994 through 1996:

| Orange County | California | United States |
|---|---|---|
| 12.4 | 14.4 | 7.5 |

Although the Orange County mortality rate for tuberculosis is less than that of California, the county exceeds the national rate and does not meet the Healthy People 2000 guideline of 3.5 per 100,000 persons. Orange County's high immigrant population may bring the disease from their country of origin.

Response rates for the OCHNA survey were too low for conclusions to be drawn; therefore, the following information should be reviewed with caution. OCHNA survey results indicate 0.8% of respondents have had tuberculosis; 23.3% of them never received treatment. More than 60% of respondents with TB consider the threat of TB to be "moderately serious" to "very serious."

# County of Orange
## Tuberculosis Rates
## by ZIP Code

*HCA/OPRP/Research Center
July 1998*

## Tuberculosis Cases per 100,000 Population

- 0.00 - 4.50
- 4.51 - 11.95
- 11.96 - 20.00
- 20.01 - 53.06
- Non Populated ZIP Code
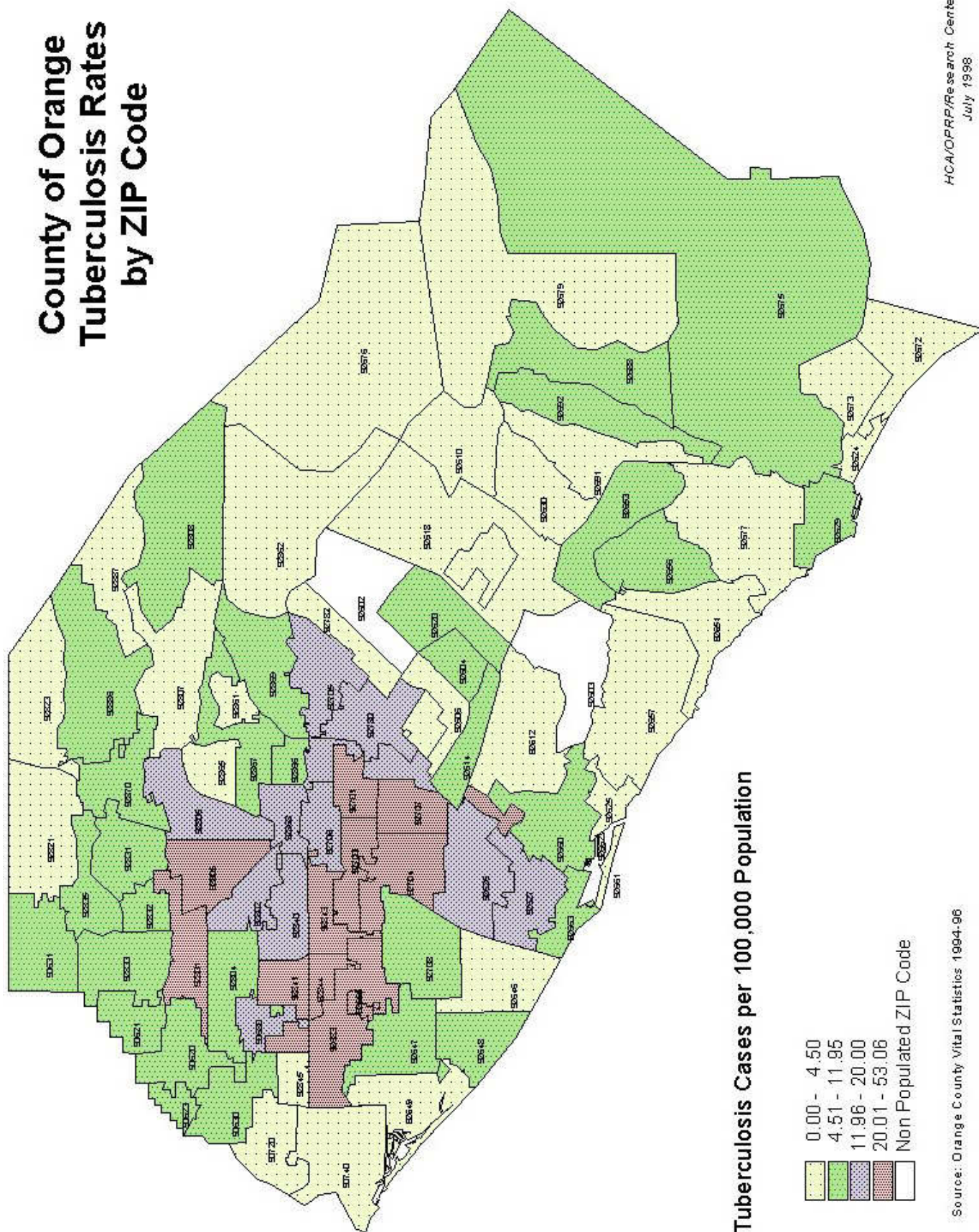
Source: Orange County Vital Statistics 1994-96

## County of Orange
## All Causes of Deaths by ZIP Code
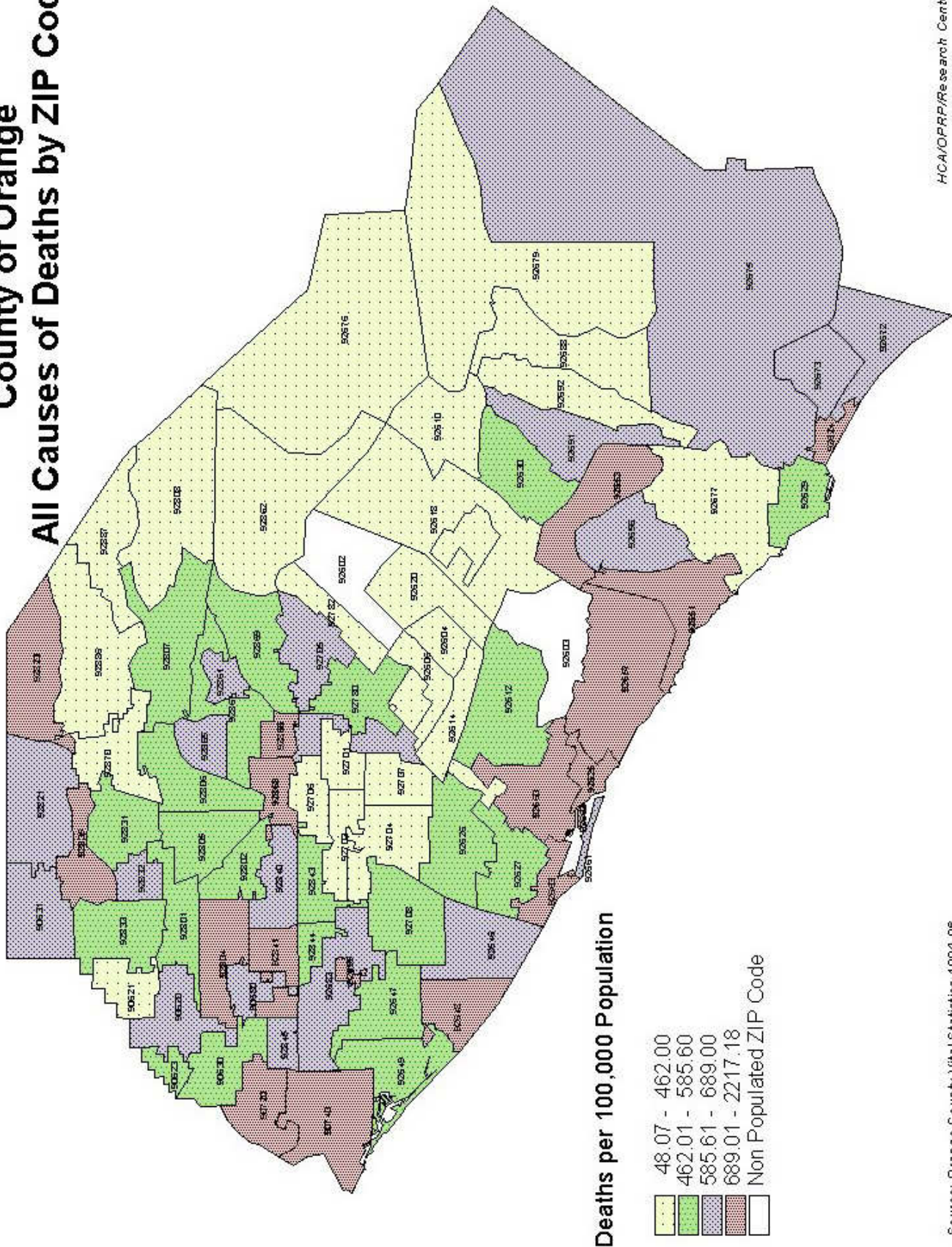


**Deaths per 100,000 Population**

48.07 - 462.00
462.01 - 585.60
585.61 - 689.00
689.01 - 2217.18
Non Populated ZIP Code

HCA/OPRP/Research Center
June 1998

Source: Orange County Vital Statistics 1994-96

# Orange County Resident Deaths 1994 – 1996
## All Residents
## Leading Causes of Death

| Rank | Cause Group | Average Number of Deaths | Percent of Total Deaths | Cum Pct of Total Deaths |
|------|-------------|--------------------------|-------------------------|-------------------------|
| 1 | Cancer | 3,790.0 | 24.59% | 24.59% |
| 2 | Ischemic Heart | 3,690.0 | 23.94% | 48.53% |
| 3 | Other Heart | 1,217.7 | 7.90% | 56.43% |
| 4 | Cerebrovascular | 942.3 | 6.11% | 62.54% |
| 5 | COPD | 778.0 | 5.05% | 67.59% |
| 6 | Pneumonia/Influenza | 721.7 | 4.68% | 72.27% |
| 7 | Other Vessel | 500.3 | 3.25% | 75.52% |
| 8 | Other Injuries | 357.3 | 2.32% | 77.84% |
| 9 | Neurologic | 311.3 | 2.02% | 79.86% |
| 10 | Diabetes | 294.3 | 1.91% | 81.77% |
| 11 | Hypertensive | 278.0 | 1.80% | 83.57% |
| 12 | AIDS | 252.7 | 1.64% | 85.21% |
| 13 | Suicide | 235.7 | 1.53% | 86.74% |
| 14 | Genitourinary | 230.7 | 1.50% | 88.24% |
| 15 | Motor Vehicle | 230.0 | 1.49% | 89.73% |
| 16 | Chronic Liver | 228.7 | 1.48% | 91.21% |
| 17 | Digestive | 228.7 | 1.48% | 92.69% |
| 18 | Mental Disorders | 181.3 | 1.18% | 93.87% |
| 19 | Homicide | 164.7 | 1.07% | 94.94% |
| 20 | Congenital | 126.0 | 0.82% | 95.76% |
| 21 | Infectious & Parasitic | 98.7 | 0.64% | 96.40% |
| 22 | Other Pulmonary | 88.3 | 0.57% | 96.97% |
| 23 | Prematurity | 84.7 | 0.55% | 97.52% |
| 24 | Other Liver | 72.3 | 0.47% | 97.99% |
| 25 | Nondiabetic endocrine | 61.0 | 0.40% | 98.38% |
| 26 | Musculoskeletal | 56.0 | 0.36% | 98.75% |
| 27 | Blood | 53.0 | 0.34% | 99.09% |
| 28 | Neoplasms | 34.0 | 0.22% | 99.31% |
| 29 | Ill-defined | 30.3 | 0.20% | 99.51% |
| 30 | SIDS | 21.7 | 0.14% | 99.65% |
| 31 | Undetermined Injuries | 15.0 | 0.10% | 99.75% |
| 32 | Neonatal Complications | 9.3 | 0.06% | 99.81% |
| 33 | Misc Perinatal | 8.3 | 0.05% | 99.86% |
| 34 | All Others | 6.0 | 0.04% | 99.90% |
| 35 | Upper Respiratory | 4.7 | 0.03% | 99.93% |
| 36 | Other Perinatal respiriatory | 3.3 | 0.02% | 99.95% |
| 37 | Skin | 3.3 | 0.02% | 99.97% |
| 38 | Pregnancy & Childbirth | 2.7 | 0.02% | 99.99% |
| 39 | Other Perinatal | 1.3 | 0.01% | 100.00% |
| | Grand Total | 15,413.3 | 100.00% | |

Note:  Other Injuries includes poisonings (155 deaths), drownings (32.7 deaths) and falls (91.0 deaths).

COPD indicates chronic obstructive pulmonary disease

## Orange County Resident Deaths 1994 – 1996
## All Males
## Leading Causes of Death

| Rank | Cause Group | Average Number of Deaths | Percent of Total Deaths | Cum Pct of Total Deaths |
|------|-------------|--------------------------|-------------------------|-------------------------|
| 1 | Cancer | 1,894.3 | 24.88% | 24.88% |
| 2 | Ischemic Heart | 1,757.3 | 23.08% | 47.97% |
| 3 | Other Heart | 583.7 | 7.67% | 55.63% |
| 4 | Cerebrovascular | 355.3 | 4.67% | 60.30% |
| 5 | COPD | 353.7 | 4.65% | 64.95% |
| 6 | Pneumonia/Influenza | 318.7 | 4.19% | 69.13% |
| 7 | Other Injuries | 245.7 | 3.23% | 72.36% |
| 8 | AIDS | 236.3 | 3.10% | 75.46% |
| 9 | Other Vessel | 208.7 | 2.74% | 78.20% |
| 10 | Suicide | 176.0 | 2.31% | 80.52% |
| 11 | Motor Vehicle | 151.3 | 1.99% | 82.50% |
| 12 | Diabetes | 148.3 | 1.95% | 84.45% |
| 13 | Chronic Liver | 147.0 | 1.93% | 86.38% |
| 14 | Neurologic | 146.3 | 1.92% | 88.31% |
| 15 | Homicide | 137.7 | 1.81% | 90.11% |
| 16 | Hypertensive | 114.0 | 1.50% | 91.61% |
| 17 | Genitourinary | 91.0 | 1.20% | 92.81% |
| 18 | Digestive | 87.3 | 1.15% | 93.95% |
| 19 | Mental Disorders | 83.7 | 1.10% | 95.05% |
| 20 | Congenital | 64.7 | 0.85% | 95.90% |
| 21 | Infectious & Parasitic | 51.0 | 0.67% | 96.57% |
| 22 | Prematurity | 42.0 | 0.55% | 97.12% |
| 23 | Other Pulmonary | 40.0 | 0.53% | 97.65% |
| 24 | Other Liver | 39.0 | 0.51% | 98.16% |
| 25 | Nondiabetic endocrine | 27.3 | 0.36% | 98.52% |
| 26 | Blood | 26.3 | 0.35% | 98.87% |
| 27 | Ill-defined | 17.0 | 0.22% | 99.09% |
| 28 | Musculoskeletal | 13.3 | 0.18% | 99.26% |
| 29 | SIDS | 13.0 | 0.17% | 99.44% |
| 30 | Neoplasms | 12.3 | 0.16% | 99.60% |
| 31 | Undetermined Injuries | 8.7 | 0.11% | 99.71% |
| 32 | All Others | 6.0 | 0.08% | 99.79% |
| 33 | Misc Perinatal | 5.0 | 0.07% | 99.86% |
| 34 | Neonatal Complications | 5.0 | 0.07% | 99.92% |
| 35 | Other Perinatal respiriatory | 2.3 | 0.03% | 99.95% |
| 36 | Upper Respiratory | 2.0 | 0.03% | 99.98% |
| 37 | Skin | 1.0 | 0.01% | 99.99% |
| 38 | Other Perinatal | 0.7 | 0.01% | 100.00% |
| 39 | Pregnancy & Childbirth | 0.0 | 0.00% | 100.00% |
| | Grand Total | 7,613.0 | 100.00% | |

Note:    Other Injuries includes poisonings (120.3 deaths), drownings (21.3 deaths), and falls (49.0 deaths).

COPD indicates chronic obstructive pulmonary disease

# Orange County Resident Deaths 1994 – 1996
## All Females
## Leading Causes of Death

| Rank | Cause Group | Average Number of Deaths | Percent of Total Deaths | Cum Pct of Total Deaths |
|------|-------------|-------------------------|-------------------------|-------------------------|
| 1 | Ischemic Heart | 1,932.7 | 24.78% | 24.78% |
| 2 | Cancer | 1,895.7 | 24.30% | 49.08% |
| 3 | Other Heart | 634.0 | 8.13% | 57.21% |
| 4 | Cerebrovascular | 587.0 | 7.53% | 64.74% |
| 5 | COPD | 424.3 | 5.44% | 70.18% |
| 6 | Pneumonia/Influenza | 403.0 | 5.17% | 75.34% |
| 7 | Other Vessel | 291.7 | 3.74% | 79.08% |
| 8 | Neurologic | 165.0 | 2.12% | 81.20% |
| 9 | Hypertensive | 164.0 | 2.10% | 83.30% |
| 10 | Diabetes | 146.0 | 1.87% | 85.17% |
| 11 | Digestive | 141.3 | 1.81% | 86.98% |
| 12 | Genitourinary | 139.7 | 1.79% | 88.77% |
| 13 | Other Injuries | 111.7 | 1.43% | 90.21% |
| 14 | Mental Disorders | 97.7 | 1.25% | 91.46% |
| 15 | Chronic Liver | 81.7 | 1.05% | 92.50% |
| 16 | Motor Vehicle | 78.7 | 1.01% | 93.51% |
| 17 | Congenital | 61.0 | 0.78% | 94.29% |
| 18 | Suicide | 59.7 | 0.76% | 95.06% |
| 19 | Other Pulmonary | 48.3 | 0.62% | 95.68% |
| 20 | Infectious & Parasitic | 47.7 | 0.61% | 96.29% |
| 21 | Prematurity | 42.7 | 0.55% | 96.84% |
| 22 | Musculoskeletal | 42.7 | 0.55% | 97.38% |
| 23 | Nondiabetic endocrine | 33.7 | 0.43% | 97.82% |
| 24 | Other Liver | 33.3 | 0.43% | 98.24% |
| 25 | Homicide | 27.0 | 0.35% | 98.59% |
| 26 | Blood | 26.7 | 0.34% | 98.93% |
| 27 | Neoplasms | 21.7 | 0.28% | 99.21% |
| 28 | AIDS | 16.3 | 0.21% | 99.42% |
| 29 | Ill-defined | 13.3 | 0.17% | 99.59% |
| 30 | SIDS | 8.7 | 0.11% | 99.70% |
| 31 | Undetermined Injuries | 6.3 | 0.08% | 99.78% |
| 32 | Neonatal Complications | 4.3 | 0.06% | 99.84% |
| 33 | Misc Perinatal | 3.3 | 0.04% | 99.88% |
| 34 | Pregnancy & Childbirth | 2.7 | 0.03% | 99.91% |
| 35 | Upper Respiratory | 2.7 | 0.03% | 99.95% |
| 36 | Skin | 2.3 | 0.03% | 99.98% |
| 37 | Other Perinatal respiriatory | 1.0 | 0.01% | 99.99% |
| 38 | Other Perinatal | 0.7 | 0.01% | 100.00% |
| 39 | All Others | 0.0 | 0.00% | 100.00% |
| | Grand Total | 7,800.0 | 100.00% | |

Note:    Other Injuries includes poisonings (34.7 deaths), drownings (11.3 deaths), and falls (42.0 deaths).

COPD indicates chronic obstructive pulmonary disease

## Orange County Resident Deaths 1994 – 1996
## All Non-Hispanic Whites
## Leading Causes of Death

| Rank | Cause Group | Average Number of Deaths | Percent of Total Deaths | Cum Pct of Total Deaths |
|------|-------------|--------------------------|-------------------------|-------------------------|
| 1 | Ischemic Heart | 3,273.3 | 25.34% | 25.34% |
| 2 | Cancer | 3,239.0 | 25.08% | 50.42% |
| 3 | Other Heart | 1,073.0 | 8.31% | 58.73% |
| 4 | Cerebrovascular | 795.3 | 6.16% | 64.89% |
| 5 | COPD | 719.0 | 5.57% | 70.46% |
| 6 | Pneumonia/Influenza | 635.0 | 4.92% | 75.37% |
| 7 | Other Vessel | 452.3 | 3.50% | 78.88% |
| 8 | Neurologic | 277.0 | 2.14% | 81.02% |
| 9 | Other Injuries | 262.7 | 2.03% | 83.05% |
| 10 | Hypertensive | 229.3 | 1.78% | 84.83% |
| 11 | Diabetes | 210.3 | 1.63% | 86.46% |
| 12 | Digestive | 196.0 | 1.52% | 87.98% |
| 13 | Suicide | 194.0 | 1.50% | 89.48% |
| 14 | Genitourinary | 190.7 | 1.48% | 90.95% |
| 15 | AIDS | 176.3 | 1.37% | 92.32% |
| 16 | Mental Disorders | 158.3 | 1.23% | 93.55% |
| 17 | Chronic Liver | 152.0 | 1.18% | 94.72% |
| 18 | Motor Vehicle | 130.7 | 1.01% | 95.73% |
| 19 | Other Pulmonary | 72.0 | 0.56% | 96.29% |
| 20 | Congenital | 57.7 | 0.45% | 96.74% |
| 21 | Infectious & Parasitic | 57.3 | 0.44% | 97.18% |
| 22 | Homicide | 53.7 | 0.42% | 97.60% |
| 23 | Other Liver | 52.0 | 0.40% | 98.00% |
| 24 | Nondiabetic endocrine | 49.7 | 0.38% | 98.38% |
| 25 | Blood | 43.3 | 0.34% | 98.72% |
| 26 | Musculoskeletal | 42.7 | 0.33% | 99.05% |
| 27 | Prematurity | 35.3 | 0.27% | 99.32% |
| 28 | Neoplasms | 26.0 | 0.20% | 99.53% |
| 29 | Ill-defined | 21.7 | 0.17% | 99.69% |
| 30 | SIDS | 10.0 | 0.08% | 99.77% |
| 31 | Undetermined Injuries | 9.3 | 0.07% | 99.84% |
| 32 | Neonatal Complications | 4.3 | 0.03% | 99.88% |
| 33 | Upper Respiratory | 4.0 | 0.03% | 99.91% |
| 34 | All Others | 3.3 | 0.03% | 99.93% |
| 35 | Skin | 3.0 | 0.02% | 99.96% |
| 36 | Misc Perinatal | 2.3 | 0.02% | 99.97% |
| 37 | Other Perinatal respiriatory | 1.7 | 0.01% | 99.99% |
| 38 | Other Perinatal | 1.0 | 0.01% | 99.99% |
| 39 | Pregnancy & Childbirth | 0.7 | 0.01% | 100.00% |
| | Grand Total | 12,915.3 | 100.00% | |

Note:    Other Injuries includes poisonings (111.7 deaths), drownings (15.0 deaths)
and falls (79.0 deaths).

COPD indicates chronic obstructive pulmonary disease

# Orange County Resident Deaths 1994 – 1996
## All Non-Hispanic Blacks
## Leading Causes of Death

| Rank | Cause Group | Average Number of Deaths | Percent of Total Deaths | Cum Pct of Total Deaths |
|------|-------------|--------------------------|-------------------------|-------------------------|
| 1 | Cancer | 35.0 | 22.39% | 22.39% |
| 2 | Ischemic Heart | 26.0 | 16.63% | 39.02% |
| 3 | Other Heart | 12.7 | 8.10% | 47.12% |
| 4 | AIDS | 11.3 | 7.25% | 54.37% |
| 5 | Other Injuries | 7.7 | 4.90% | 59.28% |
| 6 | Cerebrovascular | 7.3 | 4.69% | 63.97% |
| 7 | Homicide | 6.7 | 4.26% | 68.23% |
| 8 | Other Vessel | 5.0 | 3.20% | 71.43% |
| 9 | Motor Vehicle | 5.0 | 3.20% | 74.63% |
| 10 | Prematurity | 4.7 | 2.99% | 77.61% |
| 11 | Hypertensive | 4.7 | 2.99% | 80.60% |
| 12 | COPD | 4.3 | 2.77% | 83.37% |
| 13 | Pneumonia/Influenza | 3.3 | 2.13% | 85.50% |
| 14 | Diabetes | 3.0 | 1.92% | 87.42% |
| 15 | Suicide | 2.7 | 1.71% | 89.13% |
| 16 | Chronic Liver | 2.3 | 1.49% | 90.62% |
| 17 | Infectious & Parasitic | 2.0 | 1.28% | 91.90% |
| 18 | Genitourinary | 2.0 | 1.28% | 93.18% |
| 19 | Congenital | 1.7 | 1.07% | 94.24% |
| 20 | SIDS | 1.0 | 0.64% | 94.88% |
| 21 | Other Liver | 1.0 | 0.64% | 95.52% |
| 22 | Digestive | 1.0 | 0.64% | 96.16% |
| 23 | Blood | 1.0 | 0.64% | 96.80% |
| 24 | Neurologic | 0.7 | 0.43% | 97.23% |
| 25 | Musculoskeletal | 0.7 | 0.43% | 97.65% |
| 26 | Misc Perinatal | 0.7 | 0.43% | 98.08% |
| 27 | Mental Disorders | 0.7 | 0.43% | 98.51% |
| 28 | Ill-defined | 0.7 | 0.43% | 98.93% |
| 29 | All Others | 0.7 | 0.43% | 99.36% |
| 30 | Upper Respiratory | 0.3 | 0.21% | 99.57% |
| 31 | Skin | 0.3 | 0.21% | 99.79% |
| 32 | Other Pulmonary | 0.3 | 0.21% | 100.00% |
| 33 | Undetermined Injuries | 0.0 | 0.00% | 100.00% |
| 34 | Pregnancy & Childbirth | 0.0 | 0.00% | 100.00% |
| 35 | Other Perinatal respiriatory | 0.0 | 0.00% | 100.00% |
| 36 | Other Perinatal | 0.0 | 0.00% | 100.00% |
| 37 | Nondiabetic endocrine | 0.0 | 0.00% | 100.00% |
| 38 | Neoplasms | 0.0 | 0.00% | 100.00% |
| 39 | Neonatal Complications | 0.0 | 0.00% | 100.00% |
|  | Grand Total | 156.3 | 100.00% |  |

Note: Other Injuries includes poisonings (4.7 deaths), drownings (1.0 deaths) and falls (0.7 deaths).

COPD indicates chronic obstructive pulmonary disease

## Orange County Resident Deaths 1994 – 1996
## All Hispanics
## Leading Causes of Death

| Rank | Cause Group | Average Number of Deaths | Percent of Total Deaths | Cum Pct of Total Deaths |
|------|-------------|--------------------------|-------------------------|-------------------------|
| 1 | Cancer | 255.3 | 18.31% | 18.31% |
| 2 | Ischemic Heart | 208.0 | 14.91% | 33.22% |
| 3 | Homicide | 88.0 | 6.31% | 39.53% |
| 4 | Other Heart | 77.0 | 5.52% | 45.05% |
| 5 | Other Injuries | 67.3 | 4.83% | 49.88% |
| 6 | Motor Vehicle | 64.3 | 4.61% | 54.49% |
| 7 | Cerebrovascular | 64.3 | 4.61% | 59.11% |
| 8 | Chronic Liver | 57.3 | 4.11% | 63.22% |
| 9 | AIDS | 57.0 | 4.09% | 67.30% |
| 10 | Diabetes | 56.3 | 4.04% | 71.34% |
| 11 | Congenital | 52.3 | 3.75% | 75.10% |
| 12 | Pneumonia/Influenza | 45.3 | 3.25% | 78.35% |
| 13 | Prematurity | 36.7 | 2.63% | 80.98% |
| 14 | Other Vessel | 26.0 | 1.86% | 82.84% |
| 15 | Suicide | 22.7 | 1.63% | 84.46% |
| 16 | Neurologic | 22.3 | 1.60% | 86.07% |
| 17 | COPD | 22.3 | 1.60% | 87.67% |
| 18 | Genitourinary | 21.0 | 1.51% | 89.17% |
| 19 | Hypertensive | 19.3 | 1.39% | 90.56% |
| 20 | Digestive | 18.3 | 1.31% | 91.87% |
| 21 | Mental Disorders | 16.3 | 1.17% | 93.04% |
| 22 | Infectious & Parasitic | 16.3 | 1.17% | 94.22% |
| 23 | Other Liver | 12.3 | 0.88% | 95.10% |
| 24 | Other Pulmonary | 10.7 | 0.76% | 95.87% |
| 25 | Musculoskeletal | 8.7 | 0.62% | 96.49% |
| 26 | SIDS | 8.3 | 0.60% | 97.08% |
| 27 | Nondiabetic endocrine | 7.7 | 0.55% | 97.63% |
| 28 | Neoplasms | 6.3 | 0.45% | 98.09% |
| 29 | Ill-defined | 6.0 | 0.43% | 98.52% |
| 30 | Blood | 4.7 | 0.33% | 98.85% |
| 31 | Undetermined Injuries | 4.0 | 0.29% | 99.14% |
| 32 | Misc Perinatal | 3.7 | 0.26% | 99.40% |
| 33 | Neonatal Complications | 3.3 | 0.24% | 99.64% |
| 34 | All Others | 1.7 | 0.12% | 99.76% |
| 35 | Pregnancy & Childbirth | 1.3 | 0.10% | 99.86% |
| 36 | Other Perinatal respiriatory | 1.3 | 0.10% | 99.95% |
| 37 | Upper Respiratory | 0.3 | 0.02% | 99.98% |
| 38 | Other Perinatal | 0.3 | 0.02% | 100.00% |
| 39 | Skin | 0.0 | 0.00% | 100.00% |
|  | Grand Total | 1,394.7 | 100.00% |  |

Note:  Other Injuries includes poisonings (35 deaths), drownings (9.3 deaths)
and falls (7.7 deaths).

COPD indicates chronic obstructive pulmonary disease

# Orange County Resident Deaths 1994 – 1996
## All South East Asians
## Leading Causes of Death

| Rank | Cause Group | Average Number of Deaths | Percent of Total Deaths | Cum Pct of Total Deaths |
|------|-------------|--------------------------|-------------------------|-------------------------|
| 1 | Cancer | 86.3 | 26.87% | 26.87% |
| 2 | Ischemic Heart | 50.3 | 15.66% | 42.53% |
| 3 | Cerebrovascular | 25.7 | 7.99% | 50.52% |
| 4 | Other Heart | 17.3 | 5.39% | 55.91% |
| 5 | Motor Vehicle | 13.7 | 4.25% | 60.17% |
| 6 | Infectious & Parasitic | 12.3 | 3.84% | 64.00% |
| 7 | COPD | 12.3 | 3.84% | 67.84% |
| 8 | Homicide | 10.7 | 3.32% | 71.16% |
| 9 | Pneumonia/Influenza | 10.3 | 3.22% | 74.38% |
| 10 | Diabetes | 8.3 | 2.59% | 76.97% |
| 11 | Genitourinary | 7.7 | 2.39% | 79.36% |
| 12 | Hypertensive | 7.7 | 2.39% | 81.74% |
| 13 | Suicide | 7.3 | 2.28% | 84.02% |
| 14 | Other Injuries | 6.7 | 2.07% | 86.10% |
| 15 | Chronic Liver | 6.3 | 1.97% | 88.07% |
| 16 | Prematurity | 5.7 | 1.76% | 89.83% |
| 17 | Other Vessel | 5.0 | 1.56% | 91.39% |
| 18 | Congenital | 4.7 | 1.45% | 92.84% |
| 19 | Digestive | 4.3 | 1.35% | 94.19% |
| 20 | Neurologic | 2.7 | 0.83% | 95.02% |
| 21 | Other Liver | 2.7 | 0.83% | 95.85% |
| 22 | Nondiabetic endocrine | 2.0 | 0.62% | 96.47% |
| 23 | AIDS | 1.7 | 0.52% | 96.99% |
| 24 | Musculoskeletal | 1.7 | 0.52% | 97.51% |
| 25 | SIDS | 1.3 | 0.41% | 97.93% |
| 26 | Mental Disorders | 1.3 | 0.41% | 98.34% |
| 27 | Blood | 1.0 | 0.31% | 98.65% |
| 28 | Other Pulmonary | 1.0 | 0.31% | 98.96% |
| 29 | Neonatal Complications | 0.7 | 0.21% | 99.17% |
| 30 | Misc Perinatal | 0.7 | 0.21% | 99.38% |
| 31 | Undetermined Injuries | 0.7 | 0.21% | 99.59% |
| 32 | Other Perinatal respiriatory | 0.3 | 0.10% | 99.69% |
| 33 | Pregnancy & Childbirth | 0.3 | 0.10% | 99.79% |
| 34 | Ill-defined | 0.3 | 0.10% | 99.90% |
| 35 | Neoplasms | 0.3 | 0.10% | 100.00% |
| 36 | Upper Respiratory | 0.0 | 0.00% | 100.00% |
| 37 | Skin | 0.0 | 0.00% | 100.00% |
| 38 | Other Perinatal | 0.0 | 0.00% | 100.00% |
| 39 | All Others | 0.0 | 0.00% | 100.00% |
|  | Grand Total | 321.3 | 100.00% |  |

Note:   Other Injuries includes poisonings (2 deaths), drownings (2 deaths) and falls (1.0 deaths).

COPD indicates chronic obstructive pulmonary disease

## Orange County Resident Deaths 1994 – 1996
## All North East Asians and Pacific Islanders
## Leading Causes of Death

| Rank | Cause Group | Average Number of Deaths | Percent of Total Deaths | Cum Pct of Total Deaths |
|------|-------------|--------------------------|-------------------------|-------------------------|
| 1 | Cancer | 151.3 | 29.58% | 29.58% |
| 2 | Ischemic Heart | 97.3 | 19.02% | 48.60% |
| 3 | Cerebrovascular | 41.0 | 8.01% | 56.61% |
| 4 | Other Heart | 28.3 | 5.54% | 62.15% |
| 5 | Pneumonia/Influenza | 24.0 | 4.69% | 66.84% |
| 6 | COPD | 17.3 | 3.39% | 70.23% |
| 7 | Hypertensive | 15.7 | 3.06% | 73.29% |
| 8 | Motor Vehicle | 14.3 | 2.80% | 76.09% |
| 9 | Diabetes | 14.3 | 2.80% | 78.89% |
| 10 | Infectious & Parasitic | 10.3 | 2.02% | 80.91% |
| 11 | Other Vessel | 10.3 | 2.02% | 82.93% |
| 12 | Other Injuries | 10.0 | 1.95% | 84.89% |
| 13 | Chronic Liver | 8.3 | 1.63% | 86.51% |
| 14 | Digestive | 8.3 | 1.63% | 88.14% |
| 15 | Congenital | 7.7 | 1.50% | 89.64% |
| 16 | Neurologic | 7.3 | 1.43% | 91.07% |
| 17 | Suicide | 7.0 | 1.37% | 92.44% |
| 18 | Genitourinary | 7.0 | 1.37% | 93.81% |
| 19 | AIDS | 4.7 | 0.91% | 94.72% |
| 20 | Other Liver | 4.3 | 0.85% | 95.57% |
| 21 | Mental Disorders | 4.0 | 0.78% | 96.35% |
| 22 | Other Pulmonary | 3.3 | 0.65% | 97.00% |
| 23 | Homicide | 3.0 | 0.59% | 97.59% |
| 24 | Blood | 2.7 | 0.52% | 98.11% |
| 25 | Musculoskeletal | 2.3 | 0.46% | 98.57% |
| 26 | Prematurity | 2.0 | 0.39% | 98.96% |
| 27 | Misc Perinatal | 1.0 | 0.20% | 99.15% |
| 28 | Nondiabetic endocrine | 1.0 | 0.20% | 99.35% |
| 29 | Neonatal Complications | 0.7 | 0.13% | 99.48% |
| 30 | Undetermined Injuries | 0.7 | 0.13% | 99.61% |
| 31 | Neoplasms | 0.7 | 0.13% | 99.74% |
| 32 | SIDS | 0.3 | 0.07% | 99.80% |
| 33 | Pregnancy & Childbirth | 0.3 | 0.07% | 99.87% |
| 34 | All Others | 0.3 | 0.07% | 99.93% |
| 35 | Ill-defined | 0.3 | 0.07% | 100.00% |
| 36 | Upper Respiratory | 0.0 | 0.00% | 100.00% |
| 37 | Skin | 0.0 | 0.00% | 100.00% |
| 38 | Other Perinatal respiriatory | 0.0 | 0.00% | 100.00% |
| 39 | Other Perinatal | 0.0 | 0.00% | 100.00% |
|  | Grand Total | 511.7 | 100.00% |  |

Note:  Other Injuries includes poisonings (1.3 deaths), drownings (4.3 deaths) and falls (2.3 deaths).

COPD indicates chronic obstructive pulmonary disease